The Canadian Edge

INVESTMENT CANADA

June 1986

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WELCOME TO INVESTMENT CANADA

Investment Canada is your key to investing in Canada. Established in June, 1985, when Investment Canada replaced the Foreign Investment Review Agency, we are actively promoting and facilitating investment in this country from all sources, domestic and international.

Our new investment agency has a corporate structure headed by a president who reports to the Minister of Regional Industrial Expansion. Our mandate is three-fold:

- to encourage investment by Canadians and non-Canadians;
- to carry out research and provide policy advice on matters relating to investment; and
- to review significant investments by non-Canadians to ensure they are of net benefit to Canada.

This mandate is carried out by four main divisions: Investment Development; Investment Research and Policy; Investment Review; and Corporate Secretary (legal staff).

INVESTMENT DEVELOPMENT works closely with the provinces and the Canadian business community to develop and carry out its investment promotion activities as well as to provide its wide range of investment services. The division's investment promotion officers coordinate Investment Canada's participation in major national and international business events, such as the Opportunities Canada Conference in Toronto, which brought domestic and international investors together with representatives of the Canadian public and private sectors; and the Davos Symposium, the annual meeting of leaders from business and government that is sponsored by the European Management Forum.

The division's investment counsellors provide tailor-made information packages and assistance to investors, using networks of public and private sector contacts coast to coast. Our counsellors can give you the latest details on a range of key business topics, including regional centres of advanced technology, incentives, energy costs, joint ventures and other strategic alliances. We can assist you to identify and set up meetings with contacts in government and business. We can also help identify sources of capital, technology as well as potential investment opportunities and partners. We can even help to define your investment proposals. If we don't have all the answers right at hand, we know exactly where to find them quickly for you.

INVESTMENT RESEARCH AND POLICY is working on several comprehensive research projects. For instance, our researchers are developing a systematic means of monitoring the investment climate in Canada and other selected jurisdictions. A study is under way of alternative forms of investment, such as joint ventures, in order to evaluate their effectiveness and impact on a national and international scale. We are also undertaking a strategic analysis of the principal sources and forms of new investment. Our research staff also works hard to stay abreast of emerging investment trends in Canada and around the world. In the works is an Investment Canada newsletter, which will highlight the agency's activities as well as discuss major economic trends affecting investment.

This division has produced this comprehensive guide to doing business and investing in Canada. We think you will agree that THE CANADIAN EDGE is the most current and detailed compendium of information on the Canadian economic environment ever assembled.

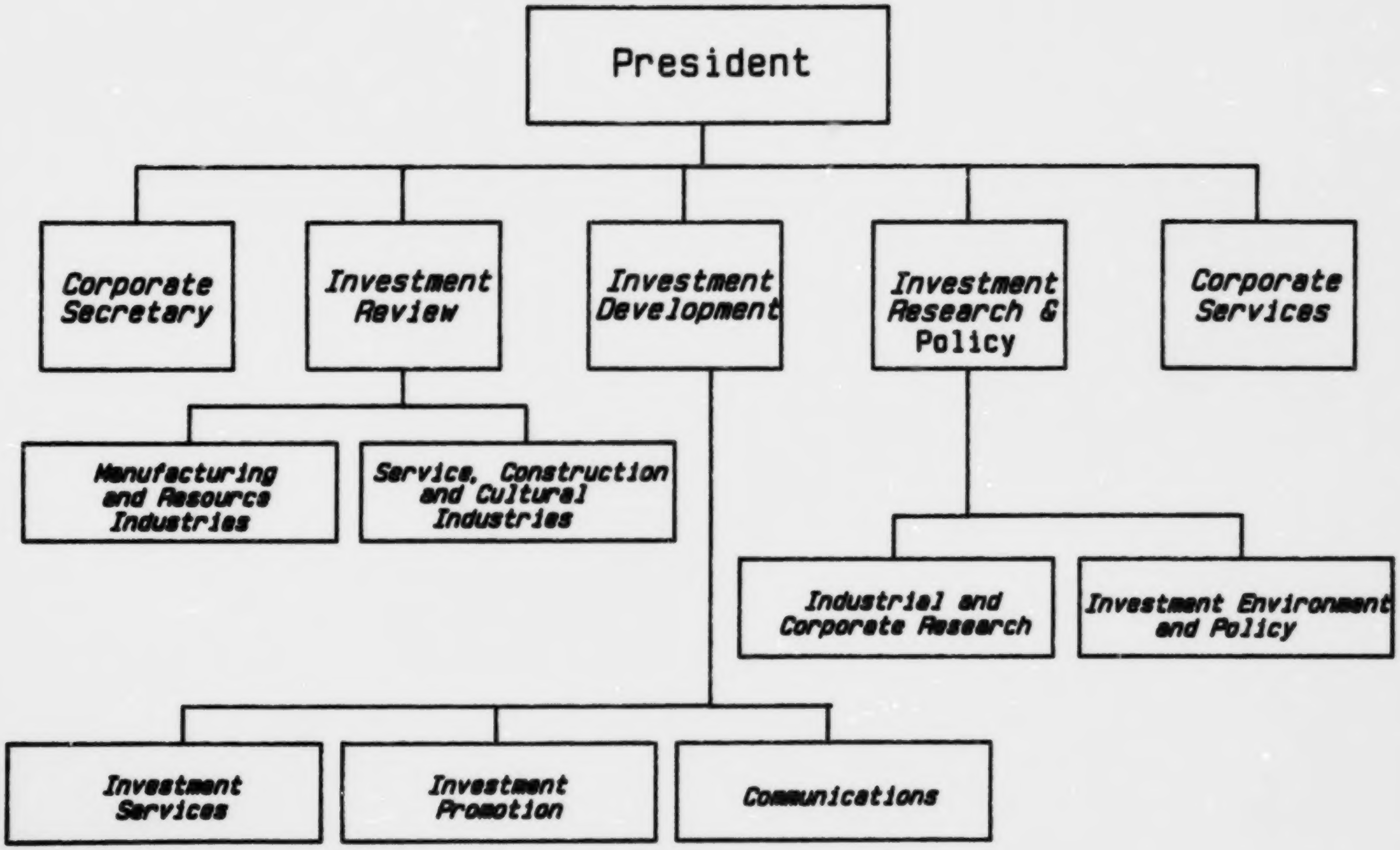
INVESTMENT REVIEW, as the name indicates, is the division of Investment Canada that analyzes and assesses significant investments by non-Canadians to ensure they are of net benefit to Canada.

One of the functions of our CORPORATE SECRETARY is to offer advice on the interpretation and application of the Investment Canada Act. Specifically, our legal staff can explain exactly how the legislation affects your investment plans.

A fifth division, CORPORATE SERVICES, is responsible for the administration of the agency.

We invite you to contact us for further information on Investment Canada and its activities. In continential North America, call our toll-free number, 1-800-267-0490, or (613) 996-7869, or use our telex facilities at 053-4450. We welcome your enquiries just as Canada welcomes your investments. The comprehensive guide you are about to read is only one example of how our agency is putting the new Canadian spirit of enterprise to work for you.

INVESTMENT CANADA
Organizational Chart



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THE CANADIAN EDGE

The publication of THE CANADIAN EDGE marks an important anniversary. It was one year ago, in June 1985, that the Investment Canada Act, creating Investment Canada, became law. The fundamental purpose of this new Canadian government agency is to encourage and facilitate investment in Canada from both domestic and international sources. THE CANADIAN EDGE is designed to play a key role in fulfilling this mandate.

Business people today face a world of increasing complexity and rapid and accelerating changes: changes in markets, changes in technology, changes in business practices. Making the right business decision requires immediate access to complete and reliable information. THE CANADIAN EDGE has been compiled by Investment Canada over the past year to meet this need.

THE CANADIAN EDGE is the most comprehensive compendium of data available about doing business in Canada. It goes beyond traditional investment guides by providing detailed information on four distinctive areas: markets; trade; energy; and R&D and technological infrastructure, an increasingly important incentive for investors. It also provides an in-depth assessment of the costs and conditions of doing business in Canada and provides comparative data from major OECD countries.

The book is divided into twenty chapters dealing with important aspects of Canadian business, e.g. Trade, Energy, Communications, Investment Policy. The chapters are, in turn, sub-divided into small sections, each described by an appropriate heading. Through the list of headings in the table of contents, the reader can gain quick and easy access to information anywhere in the book. Numerous tables, charts and graphs supplement the text, summarizing and analyzing data relevant to the Canadian business environment.

Investment Canada will provide annual updates to keep subscribers abreast of changes in the economy, tax laws and investment programs. Because the book is a loose-leaf binder, these can be easily inserted in the appropriate sections. Should readers require more up-to-date information on financial incentives, taxation, trade and markets, or should readers wish to comment or suggest material to include in the annual updates, write to:

THE CANADIAN EDGE
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Investment Canada
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CANADA

In continental North America, call our toll-free number, 1-800-267-0490, or (613) 996-7869, or use our telex facilities at 053-4450.

The researching and writing of THE CANADIAN EDGE owes much to the efforts of those at Investment Canada and other government departments, as well as agencies in the private sector. The project was conceived, developed and managed by Arpad Abonyi, who is also Chief Editor. A special appreciation is extended to Susan Bedard, for her dedication to the project, personal sacrifices and enduring sense of humour throughout. Within Investment Canada thanks also go to project coordinator David Swimmer, Hugh Henderson, Dennis Shanley, George Woods, Yash Lamba, Louise LeBrun, Stephen Lewarne, Chris Sapardanis, Michael Rudiak, Marvin Bedward, Deborah Moores, Ian McLeod, Brian McGivern, Corinne Nolan, Bonny Dupras, Bernard Cossais, Sylvia Doyle, Richard LePage, Alan Darisse, Roy Jackson, Russell Deigan, Gayle Duggan, Diane Greco, and Margot Humphreys, and to all those others at Investment Canada without whom we could not have completed this project.

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Investment Canada accepts full responsibility for the interpretation and comments contained in THE CANADIAN EDGE but cannot be held accountable for possible inaccuracies in the data obtained from other sources.

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QUICK FACTS

Area: Canada is 9,922,330 square kilometers (3,830,000 square miles) in size, comprising 6.7 percent of the world's land area. Second only to the U.S.S.R. (with 14.9 percent), Canada ranks ahead of the U.S. and China, each with 6.4 percent.

Population: At the beginning of October 1985, the population numbered 25.4 million, up 0.9 percent from October 1984.

Political System: Canada is a constitutional monarchy consisting of a federal parliament, ten provincial legislatures and two territorial legislatures.

The Economy: Canada has a free market economy which is the seventh largest in the western industrial world. In 1985, the gross national product (GNP) was $453 billion.

Labour Force: The labour force averaged 12.6 million in 1985, up 1.9 percent from 1984. The largest proportion, 37.9 percent, resided in Ontario, followed by Quebec with 25.2 percent, the Prairies with 17.9 percent, British Columbia with 11.3 percent and the Atlantic Provinces with 7.7 percent. Unemployment averaged 10.5 percent (1.3 million) in Canada in 1985, down from 11.3 percent (1.4 million) in 1984. The Atlantic Provinces had the highest rate (15.9 percent) and Ontario the lowest (8.0 percent). Quebec and the Prairies had unemployment rates of 11.8 percent and 9.2 percent respectively.

Job Creation: Over the 1960 to 1981 period, the number of persons employed in Canada increased at an annual average rate of 3 percent. This record was the best in the western industrial world, and 50 percent better than the record of the U.S., which created employment at an annual average rate of 2 percent over the same period.

From 1970 to 1985, annual employment growth averaged 2.4 percent, second in the OECD. During this period, 3.4 million net jobs were created. From 1973 to 1984, Canada had the best record of job creation in the OECD, resulting in 28 percent more jobs compared to 25 percent in the U.S., 12 percent in Japan and zero percent in West Germany.

At the end of 1985, the absolute number of employed persons in Canada was at an all-time high; some 311,000 jobs have been created in the 1984 to 1985 period. From the low point of the recession in 1982 to the high point of recovery in 1985 a total of 667,000 jobs have been created. Forecasters predict that Canadian employment will continue to grow by about 2 percent annually until 1990.

Gross National Product & Gross Domestic Product*:

The GNP (at market prices) rose to $453 billion in 1985, up 7.5 percent from 1984. On a per capita basis, the GNP increased by 7 percent, to $17,870. In real terms, the GNP increased by nearly 4.5 percent, while the Gross Domestic Product (see Table 2 for comparison to other OECD countries) rose by 3.5 percent. The service-producing industries increased by 3.6 percent, with the goods-producing industries up 3.3 percent. Overall, manufacturing accounted for 21 percent of real GDP, comprised of 10 percent non-durables and 11 percent durables.

Income:

Total personal income rose by 7.3 percent in 1985, to an estimated $388.7 billion. Wages, salaries and supplementary labour income made up 63 percent of the total, while transfers from government accounted for 15 percent, and interest, dividends, and miscellaneous investment income comprised 14 percent. Average per capita income rose by 7 percent in 1985, to $15,300.

Prices:

The Consumer Price Index rose by 4.0 percent in 1985, down from the 4.4 percent increase experienced in 1984. This is the lowest change since 1975. The Industry Selling Price Index for manufacturing increased by 2.7 percent, compared to 4.0 percent in 1984. Raw materials prices, excluding fuels, fell by 2.3 percent in 1985, down from a 5.3 percent increase in 1984 over 1983.

Foreign Investment:

Canada is one of the major recipients of foreign investment in the international economy. In 1984, the country received some $2.4 billion of net direct investment alone, up about $2.2 billion from 1983.

Energy:

In 1984, net domestic energy consumption in Canada stood at 6,364 petajoules. Since 1979, the level of energy consumption in the country has declined at an average rate of 2.8 percent per year.

Prime Rate:

1984: average monthly rate: 12.0 percent
1985: average monthly rate (Jan to Nov): 10.5 percent

---

* GNP less indirect taxes and investment income received from non-residents, plus investment income paid to non-residents.

Quick Facts

Bank Rate:

1984: average monthly rate: 11.31 percent
1985: average monthly rate: 9.72 percent

Trade:

Domestic exports increased by 6.3 percent in 1985, to an estimated $116.4 billion compared to a 23.8 percent growth during 1984. Exports to the U.S. comprised 78 percent of the total, up from 1984, while exports to Japan and the U.K. accounted for 4.9 percent and 2.1 percent respectively. Imports rose by 10.4 percent in 1985, to $105.8 billion of which 71.4 percent originated from the U.S., 5.8 percent from Japan and 3.0 percent from the U.K.

The trade surplus (on a customs basis) declined to $10.6 billion, down 23.2 percent from 1984. Table 1 illustrates changes in the more significant categories of imports and exports.

Exchange Rates:

The table below outlines the average annual exchange rates for the Canadian dollar vis-à-vis the major world currencies, for the last 6 years.

EXCHANGE RATES*

Canadian dollars per unit of:

Year	U.S. Dollar	British Pound	French Franc	German Mark	Swiss Franc	Japanese Yen
1980	1.1690	2.7196	0.2771	0.6444	0.6986	0.005183
1981	1.1990	2.4287	0.2307	0.5318	0.6122	0.005450
1982	1.2341	2.1579	0.1885	0.5086	0.6091	0.004966
1983	1.2324	1.8683	0.1624	0.4834	0.5873	0.005190
1984	1.2948	1.7300	0.1487	0.4564	0.5527	0.005457
1985	1.3652	1.7702	0.1533	0.4677	0.56.5	0.005767

* Annual average of noon spot rates.

Source: Bank of Canada Review

TABLE 1

PRINCIPAL CANADIAN EXPORTS AND IMPORTS

(Customs Basis)

($ billions and % distribution)

Commodity Group	1984 Value	1984 %	1985* Value	1985* %	% Change 1984-85
Exports					
Transportation Equipment	32.3	29.5	36.5	31.4	13.0
Communications & Other Equipment	6.0	5.4	6.4	5.5	6.7
Food, Feed, Beverages & Tobacco	10.3	9.4	9.1	7.8	-11.6
Chemicals	5.3	4.8	5.5	4.7	3.8
Oil, Gas & Coal	10.1	9.2	11.9	10.2	17.8
Industrial Machinery	2.8	2.6	3.0	2.6	7.1
Non-ferrous Metals	6.3	5.8	6.0	5.2	-4.8
Metal Ores, Concentrates & Scrap	3.7	3.3	3.5	3.0	-5.4
Refined Petroleum	3.2	2.9	3.2	2.7	-
Wood and Paper	15.2	13.9	15.8	13.5	3.9
Other Products	14.3	13.1	15.5	13.3	8.4
TOTAL DOMESTIC EXPORTS	109.5	100.0	116.4	100.0	6.3
RE-EXPORTS	3.0		3.3		10.0
TOTAL EXPORTS	112.5	100.0	119.7	100.0	6.4
Imports					
Transportation Equipment	30.2	31.5	36.5	34.5	20.9
Communications & Computers	8.8	9.2	8.5	8.0	-3.4
Other Industrial Equipment	6.3	6.6	7.0	6.6	11.1
Food, Feed, Beverages & Tobacco	5.8	6.0	5.8	5.5	-
Chemicals	5.2	5.4	5.5	5.2	5.8
Special Industry Machinery	4.0	4.2	5.0	4.7	25.0
Oil, & Coal	4.5	4.7	4.5	4.2	-
Textiles, Clothing and Footwear	3.9	4.1	4.2	4.0	5.1
General Purpose Machinery	2.6	2.7	3.0	2.8	15.4
Non-ferrous Metals	2.3	2.4	2.6	2.5	13.0
Other Products	22.2	23.1	23.1	21.9	12.6
TOTAL IMPORTS	95.8	100.0	105.7	100.0	10.3

* 11 months annualized.

Source: Statistics Canada, Summary of Canadian International Trade.

TABLE 2

COMPARISON OF CANADA TO OTHER OECD COUNTRIES FOR SELECTED ITEMS - 1983

(at 1983 prices and exchange rates)

1. GDP (IN PURCHASERS' VALUES)

Rank

1. United States
2. Japan
3. Germany
4. France
5. United Kingdom
6. Italy
7. Canada
8. Spain
9. Australia
10. Netherlands

2. EXPORTS

Rank

1. United States
2. Germany
3. Japan
4. France
5. United Kingdom
6. Italy
7. Canada
8. Netherlands
9. Belgium
10. Switzerland

3. IMPORTS

1. United States
2. Germany
3. Japan
4. France
5. United Kingdom
6. Italy
7. Canada
8. Netherlands
9. Belgium
10. Switzerland

4. GDP PER CAPITA

1. Switzerland
2. United States
3. Norway
4. Canada
5. Sweden
6. Denmark
7. Germany
8. Finland
9. Australia
10. Japan

Source: *OECD National Accounts*, Edition 1985.

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GENERAL INFORMATION

Canada is a politically stable democracy with a market-based, free enterprise economy, the seventh largest in the western industrial world. The standard of living is among the highest in the world.

Canada's pioneering heritage and cultural diversity have led to a cooperative spirit between business and government. That spirit lives on in Canada's desire to attract entrepreneurs and investors.

This chapter presents an overview of the highlights of Canada's people, institutions, economy, culture and geography.

1. CLIMATE

Canada's regional climates are controlled by the geography of North America and by the general movement of air from west to east. The Pacific Coast is cool and fairly dry in summer, but mild, cloudy and wet in winter. Interior British Columbia has climates which vary more with altitude than latitude: wet windward mountain slopes with heavy snows in winter; dry rainshadow valleys, hot in summer; and high plateaus with marked day to night temperature contrasts. Interior Canada, from the Rocky Mountains to the Great Lakes, has a continental climate with long, cold winters, short, warm summers and scant precipitation. Southern portions of Ontario and Quebec have a humid climate with cold winters, hot summers and ample precipitation. The Atlantic provinces have a humid, continental climate with a maritime effect in the coastal areas. On the northern islands, along the Arctic Coast and around Hudson Bay, arctic conditions prevail. Long, frigid winters and only a few months with temperatures averaging above freezing are typical. Precipitation is light in the tundra area north of the treeline. Boreal Canada, between the arctic and southern climates, has a transitional climate with bitter, long winters but appreciable summer periods. Precipitation is light in the west, but heavier in the Ungava Peninsula.

Temperature and precipitation data for various districts are shown in Table 1. Additional data and reports concerning Canada's climate are available from the Atmospheric Environment Service of Environment Canada.

2. GEOGRAPHY & POPULATION

Canada is the largest country in the western hemisphere and the second largest in the world. Its land area of 9.2 million square kilometers (3.6 million square miles) varies from the almost semi-tropical Great Lakes peninsula and south-west Pacific coast, to wide, fertile prairies and great areas of mountains, rocks and lakes to northern wilderness and Arctic tundra. About 60 percent of Canada's population lives between the U.S. border and a line running from Sault Ste. Marie to Quebec City. (See Table 2 for population and land area statistics). This area contains Canada's two largest cities, Toronto and Montreal, as well as Ottawa, the nation's capital, and smaller cities, including Hamilton, London, Windsor, Kitchener, Sudbury, and Quebec City. Major centres in northern Ontario and the prairie provinces include the cities of Thunder Bay, Winnipeg, Regina, Saskatoon, Edmonton and Calgary.

TABLE 1

HIGH AND LOW TEMPERATURES AND PRECIPITATION DATA

	Temperatures (Celsius)		Precipitation		
	Mean Jan.	Mean July	Total all forms mm	Snow cm	Av. No. of days (all forms)
NEWFOUNDLAND					
St. John's	-3.8	15.3	1,511.5	363.7	210
PRINCE EDWARD ISLAND					
Charlottetown	-6.7	18.4	1,127.8	305.1	169
NOVA SCOTIA					
Halifax	-3.2	18.3	1,318.8	210.8	152
NEW BRUNSWICK					
Saint John	-7.1	17.1	1,400.3	309.4	152
QUEBEC					
Montreal	-8.9	21.6	999.0	243.1	164
Quebec City	-11.6	19.2	1,088.6	326.6	164
ONTARIO					
Thunder Bay	-14.8	17.5	738.5	222.0	141
Toronto	-4.4	21.8	789.9	141.0	134
MANITOBA					
Winnipeg	-18.3	19.7	535.2	131.3	121
SASKATCHEWAN					
Regina	-17.3	18.9	397.9	114.8	114
ALBERTA					
Edmonton	-14.7	17.5	446.5	132.1	121
Calgary	-10.9	16.5	437.1	153.9	113
BRITISH COLUMBIA					
Vancouver	2.4	17.4	1,068.1	52.3	161
YUKON					
Whitehorse	-18.9	14.1	465.3	211.6	148
NORTHWEST TERRITORIES					
Hay River	-25.5	15.6	260.3	127.8	118

Source: Statistics Canada, Canada Yearbook

TABLE 2

POPULATION DISTRIBUTION AND LAND AREA: CANADA & PROVINCES

	Population 1976 (,000)	Population 1985 (,000)	Annual Av. Growth Rate (1976-1985)	Land Area (thou. km^2)	1985 Population Density (Persons/km^2)
Canada	22993	25263	1.1	9205	2.7
Newfoundland	538	579	0.4	372	1.6
Prince Edward Island	118	127	0.8	6	21.2
Nova Scotia	829	878	0.6	53	16.6
New Brunswick	677	717	0.6	72	10.0
Quebec	6234	6562	0.6	1358	4.8
Ontario	8264	9024	1.0	917	9.8
Manitoba	1022	1065	0.5	548	1.9
Saskatchewan	921	1016	1.1	570	1.8
Alberta	1838	2338	2.7	638	3.7
British Columbia	2467	2883	1.8	893	3.2
Yukon	22	23	0.5	532	*
Northwest Territories	43	51	1.9	3246	*

*Less than 0.1

Source: Statistics Canada

Smaller locations include Brandon, Yorkton, Moose Jaw, Battleford, Red Deer, Medicine Hat and Lethbridge. The country's third-largest city, Vancouver, lies on the lower British Columbia mainland. Other major B.C. population centres are Victoria, on Vancouver Island, Penticton and Kelowna, in the Okanagan Valley, Prince George and Prince Rupert. See Table 3 for the population of the largest centres.

Canada is bounded on the west by the Pacific, on the east by the Atlantic and on the north by the Arctic Oceans, affording direct shipping access to all world markets.

Abundant water supplies have been an essential ingredient in the development of Canada's industrial production, hydroelectric power, fisheries, agriculture, recreational activities, transportation and wildlife resources. About 8 percent of Canada is covered by lakes and rivers. Among the largest freshwater bodies in the world are the Great Lakes, which, along with the St. Lawrence River and Seaway, provide a gateway to Canada's largest markets, as well as direct access to the U.S. midwest via Chicago and the heavily industrialized states of Ohio, Indiana, Illinois, Pennsylvania, Michigan and New York. Direct shipping to and from other areas of the world is a regular feature of Seaway traffic.

TABLE 3

1981 Census Counts and Postcensal Population Estimates Census Metropolitan Areas, June 1, 1982 and 1983 (In thousands)

Census Metropolitan Areas	1981 Census (1)	1982 Estimates	1983 Estimates
Metroplitan Areas	13658.1	13831.6	13965.1
Calgary (2)	592.6	625.7	620.5
Chicoutimi-Jonquiere	135.2	137.5	138.0
Edmonton	656.9	679.5	698.6
Halifax	277.7	278.2	280.7
Hamilton	542.1	547.3	548.1
Kitchener	287.8	293.1	294.4
London	283.7	286.5	287.2
Montreal	2828.3	2848.7	2862.3
Oshawa	154.2	158.6	160.0
Ottawa-Hull	718.0	726.1	737.6
Ontario Part	547.4	555.3	565.7
Québec Part	170.6	170.7	171.8
Quebec	576.0	583.1	580.4
Regina	164.3	167.8	172.7
St. Cath-Niagara	304.4	303.6	304.4
St. John's	154.8	154.8	155.5
Saint John	114.0	114.3	114.4
Saskatoon	154.2	158.8	162.5
Sudbury	149.9	149.5	148.4
Thunder Bay	121.4	121.9	122.2
Toronto	2998.7	3028.2	3067.1
Trois Rivieres	111.4	112.6	113.4
Vancouver	1268.1	1283.0	1310.6
Victoria	233.5	236.4	240.4
Windsor	246.1	243.7	244.8
Winnipeg	584.8	592.9	600.7

(1) The June 3, 1981 Census figures are adjusted to refer to June 1st, 1981.
(2) Estimates based on the annual census conducted by the city.

Note: Each figure has been rounded independently to the nearest hundred.

3. GOVERNMENT

3.1 The Constitution

3.1.1 History of the Constitution

Canada is a federal state, established in 1867. In that year, at the request of three separate colonies (Canada, Nova Scotia and New Brunswick), the British Parliament passed the British North America (BNA) Act, which "federally united" the three "to form...one Dominion under the name of Canada".

In essence, the Act embodied the decisions at which delegates from the colonies, the "Fathers of Confederation", had themselves arrived. One modification provided for the appointment of extra Senators to break potential deadlocks between the two Houses of Parliament.

The federation initially consisted of four provinces. The pre-Confederation Province of Canada was divided into the two provinces of Ontario and Quebec, while Nova Scotia and New Brunswick retained their former limits. In 1870 the Parliament of Canada created Manitoba. British Columbia entered the federation in 1871 and Prince Edward Island in 1873. In 1905, the Parliament of Canada created Saskatchewan and Alberta, and in 1949, welcomed Newfoundland.

Canadians had acquired internal self-government prior to Confederation, and the new country gradually acquired full control over external affairs. Canada became a fully sovereign state in principle in 1926, although it was not until the proclamation of the Constitution Act, 1982, that the last formal vestige of Canada's former colonial status was finally removed.

3.1.2 Division of Powers and Status of Languages

The BNA Act, now renamed the Constitution Act, 1867, gives the Canadian Parliament power to "make laws for the peace, order and good government of Canada in relation to all matters...not...assigned exclusively to the legislatures of the provinces". The Act added a list of examples of this general power, which includes legislating with respect to: defence; raising money by any kind of taxation; regulation of trade and commerce; navigation and shipping; fisheries; currency and banking; bankruptcy and insolvency; interest; patents and copyrights; marriage and divorce; criminal law and criminal procedure; penitentiaries; interprovincial and international steamships, ferries, railways, canals and telegraphs; and any "works" situated within a province that are declared by Parliament to be "for the general advantage of Canada". An amendment in 1940 added unemployment insurance to the federal jurisdiction.

The Act of 1867 gave Parliament and the provincial legislatures concurrent power over agriculture and immigration, with the federal law prevailing over the provincial, in case of conflict. Amendments have since provided for concurrent jurisdiction over pensions, but with provincial law prevailing in case of conflict.

The Constitution Act, 1982 established the equal status of English and French in all the institutions of the Parliament and Government of Canada and of the legislature and government of New Brunswick. English and French may be used in the debates of the legislatures and in any pleading or process of the courts of Quebec and Manitoba and must be used in keeping the records and journals of the legislatures of those provinces.

In addition to these language rights, the Constitution of Canada provides language of education rights for the linguistic minority, whether anglophone or francophone, in each province or territory. The Constitution sets out certain educational rights for some denominational groups, and it affirms and recognizes the rights of Canada's aboriginal peoples. The Canadian Charter of Rights and Freedoms protects the fundamental freedoms, the democratic rights, the mobility rights, the legal rights and the equality rights of all Canadians.

Each provincial legislature has exclusive power over: the amendment of the provincial Constitution (except as regards the office of Lieutenant Governor, the legal head of the provincial executive); natural resources; direct taxation for provincial purposes; prisons; hospitals; asylums; charities; municipal institutions; licences for provincial companies; solemnization of marriage; property and civil rights; administration of justice (including the establishment of civil and criminal courts and civil procedure); matters of a merely local or private nature; and education, subject to certain safeguards for denominational schools in Newfoundland and Protestant or Roman Catholic schools in the other provinces. Judicial decisons have given "property and civil rights" a very wide scope, including most labour legislation and much of social security.

3.1.3 Amendments to the Constitution

The unanimous consent of Parliament and the legislatures of all the provinces is required for amendments to the Constitution respecting matters such as the office of the Queen, the Governor General or the Lieutenant Governor of a province, and the composition of the Supreme Court. For other constitutional amendments of general application, the consent of Parliament and seven provinces, representing at least 50 percent of the population, is required. However, where an amendment derogates from the legislative powers, the proprietary rights or any other right or privilege of the provincial legislature or government, the legislative assembly of a province can express its dissent and the amendment will not have effect in that province. In such a case, if the amendment is one transferring legislative powers to Parliament relating to education or other cultural matters, Canada shall provide reasonable compensation to any province in which the amendment does not apply.

The Constitution Act and its amendments provide only a skeletal, governmental framework, which is filled out by judicial interpretation, by various Acts of Parliament and of the provincial legislatures and, most of all, by custom or "convention".

The powers of the Crown are exercised, as the Fathers of Confederation put it, "according to the well understood principles of the British Constitution". Canada has inherited and elaborated on these conventions to suit its own needs.

3.2 The Executive

3.2.1 The Governor General and the Queen

Canada is a constitutional monarchy. The executive government "is vested in the Queen" of Canada, who is also Queen of the United Kingdom and the Commonwealth countries. In strict law, the powers of the Crown are very great. In fact, they are exercised on the advice of a Cabinet responsible to, and having the confidence of, the House of Commons, the members of which are elected by the people. The powers of the Crown are normally exercised in the Queen's name by her personal representative, the Governor General. Always a Canadian, the Governor General is appointed on the advice of the Prime Minister of Canada.

Except in extraordinary circumstances, the Governor General or the Queen must act on the advice of ministers. On the advice of the Prime Minister, the Governor General appoints the ministers and the members of the Senate. The Prime Minister decides when Parliament meets and normally decides when Parliament is dissolved for a general election, although one must be held at least once every five years. The Governor General in Council (on the advice of Cabinet), appoints judges of the superior, district and county courts, the Lieutenant Governors of the provinces, deputy ministers and other senior government officials.

3.2.2 The Cabinet and Prime Minister

The Cabinet and the Prime Minister derive their powers from the conventions rather than the law of the constitution. The Constitution Act provides only for a "Queen's Privy Council for Canada" appointed by the Governor General to "aid and advise" him. The Privy Council consists of all Cabinet ministers, all former ministers and various distinguished individuals appointed as a mark of honour; membership in the Privy Council is for life. It is to some extent an honorific body, its practical importance being that membership in it is an essential requirement for holding ministerial office, and that only Privy Councillors currently holding ministerial office may advise the Governor General through orders-in-council.

The Cabinet is an informal body composed of those Privy Councillors currently holding ministerial office and is presided over by the Prime Minister. As of February 1986, the Cabinet has 40 members, including the Prime Minister. By convention, all ministers must be members of Parliament and most ministers are members of the House of Commons. It is customary, insofar as representation in Parliament permits, for the Cabinet to include at least one minister from every province, with the more populous provinces receiving greater representation.

The members of the Cabinet must speak as one on all questions of government policy. A minister who cannot support that policy must resign. Each department minister is answerable to the House of Commons for that department. The Cabinet is answerable to the House for government policy and administration generally.

If the government is defeated in the House on a motion of want of confidence, it must either resign office, at which point the Governor General calls on the Leader of the Opposition to form a new government, or seek dissolution of Parliament, which leads to a general election. The latter procedure is generally followed. Defeat of a major government bill is ordinarily considered a vote of want of confidence, leading to the same consequences, but the government can choose to consider any such defeat not decisive. The House then has the option of voting on a motion of want of confidence.

Only the government can introduce bills for the raising or spending of public funds. Members of the House of Commons, other than ministers, may move to reduce proposed taxes or expenditures, but not to raise them. The rules of the House allot most of the time for debate of government business and nearly all legislation now comes from the government. If the parties fail to agree on a timetable for dealing with the various stages of a bill, the government has the power to move closure, so as to cut off debate. The rules are careful to provide abundant opportunity for the Opposition to question, criticize, and move amendments to the government's bills. Twenty-five days of each parliamentary year are specifically allotted to the Opposition to debate any subject it chooses, and on six of these days it can move want of confidence.

3.3 The Legislature

3.3.1 Parliament

Parliament consists of the Queen, the Senate and the House of Commons.

3.3.2 The Senate

The Senate is comprised of 104 seats with the following distribution: 24 from Ontario, 24 from Quebec, 6 from Newfoundland, 10 from Nova Scotia, 10 from New Brunswick, 4 from Prince Edward Island, 6 each from Manitoba, Saskatchewan, Alberta and British Columbia, 1 from the Yukon and 1 from the Northwest Territories. As of February 1986, the political distribution is as follows: 71 Liberals, 1 Independent Liberal, 26 Progressive Conservatives, 3 Independents and 3 vacancies. Senators are appointed by the Governor General who, by convention, does so on the advice of the Prime Minister. Senators must retire at age 75.

The Senate and the House of Commons have identical legislative duties and powers, with the exception that financial bills must originate in the House of Commons. Much of the Senate's work is done in expert committees, where recommendations may be made to amend bills. Private bills, most of which are non-political, usually originate in the Senate. On occasion, the Senate provides a forum for debate on important social and economic issues of the day.

3.3.3 The House of Commons

The House of Commons has 282 members: 7 from Newfoundland, 11 from Nova Scotia, 10 from New Brunswick, 4 from Prince Edward Island, 75 from Quebec, 95 from Ontario, 14 each from Manitoba and Saskatchewan, 21 from Alberta, 28 from British Columbia, 1 from the Yukon and 2 from the Northwest Territories.

As of February 1986, the Progressive Conservatives held 211 seats, the Liberals 40 and the New Democratic Party 30. One constituency is represented by an Independent. The number of constituencies allotted to each province is computed according to the democratic principle of representation by population, on the basis of a complex formula contained in the Constitution Act. The total number of members, and the representation of each province, is readjusted after each decennial census. However, no province can have fewer members in the House of Commons than in the Senate.

In the House of Commons, all bills pass through three stages known as readings. The first, at which time the bill is tabled, is purely formal. On the second reading, the House gives the bill consideration in principle and, if satisfied, refers it to a committee, where it is dealt with clause by clause. Supply and budget bills, and such others as the House thinks fit, may be referred to the Committee of the Whole, which is the whole House sitting under special rules allowing detailed discussion. All other bills are sent to one of the 20 Standing Committees, each of which has specific areas of responsibility. The appropriate committee reports the bill to the House, with or without amendments. At this stage any member of the House of Commons may propose amendments, which are debatable. Third reading then follows. If the bill passes this last stage, it is sent to the Senate, where it goes through a similar procedure, following which it receives Royal Assent, completing the process by which legislation is enacted.

3.4 Political Parties

3.4.1 The Role of Parties in the Canadian Political System

The Canadian Constitution would be unworkable without political parties. Political parties and party discipline make possible a stable government, capable of carrying its policies into effect. They also provide a continuous organized criticism of government. They make possible an orderly transfer of power from one government to another. They help to educate the electorate on public affairs and reconcile divergent elements and interests from different parts of the country.

3.4.2 The Progressive Conservative, Liberal, and New Democratic Parties

The Liberal Party has its roots in the pre-Confederation Reform parties that struggled for the establishment of parliamentary responsible government in the 1840s. The Progressive Conservative Party dates from a coalition of moderate Conservatives and moderate Reformers in the province of Canada in 1854. It was broadened into a national party in 1867 when Sir John A. Macdonald, the first Prime Minister of the Canadian federation, formed a Cabinet of eight Conservatives and five Liberals or Reformers, whose followers soon came to be known as "Liberal-Conservatives". The present name was adopted in 1942. The New Democratic Party dates from 1961 when the major trade union federation, the Canadian Labour Congress (CLC), and the Co-operative Commonwealth Federation (CCF), joined forces to launch a new party. The CCF was founded in 1932 by a group of farm and labour parties in the western provinces.

3.4.3 Majority and Minority Governments

The party in power is the party with more than half of the elected members in the House of Commons. The other parties with members in the House are called opposition parties. An important task of opposition parties is to criticize and try to improve new laws proposed by the party in power. Members not affiliated with one of the official parties are called independents.

When no party has a majority in the House, a minority government is formed. A minority government requires the support of members of one or more other parties to remain in power.

A major concern of federal politics is to maintain harmonious relations between regional concerns and those of the country as a whole. Provincial parties are independent of federal parties and may take a different stand from their federal counterparts in the name of regional interests.

Canadians choose governments by voting in general elections which are held every five years or less. Voting is by secret ballot and every adult Canadian citizen has one vote. The candidate receiving the largest number of votes in his or her electoral riding, or constituency, represents that riding in the next Parliament.

3.5 Provincial and Territorial Government

In each province, the machinery of government is similar to that of the central government, except that no province has an upper house. The Crown is represented by a Lieutenant Governor.

The Yukon and Northwest Territories are made up of the land and islands north and northeast of the provinces. Although they come directly under the Government and Parliament of Canada, the Territories enjoy a growing degree of self-government.

The Yukon is administered by a Commissioner, appointed by the Government of Canada, and an elected Council of 16 members from which an Executive Council is appointed. This Executive Council is responsible to the elected Council in much the same way as a provincial Ministry is responsible to a provincial legislature. The Commissioner in Council can pass laws dealing with direct taxation for local purposes, establishment of territorial offices, sale of liquor, preservation of game, municipal institutions, licences, incorporation of local companies, property and civil rights, solemnization of marriage and matters of a local and private nature.

The Northwest Territories is administered by a Commissioner, appointed by the Government of Canada, an elected Council of 22, and an Executive Committee composed of the Commissioner, a Deputy Commissioner and up to five members of the elected Council who are nominated by the Council. The Commissioner in Council has powers similar to his or her counterpart in the Yukon.

3.6 Municipal Government

Municipal government, under provincial jurisdiction, varies from one municipality to another. All municipalities (cities, towns, villages and rural) are governed by elected councils. In Ontario and Quebec, there are also counties which group smaller municipal units, and regional municipalities for large metropolitan areas.

In general, the municipalities are responsible for police and fire protection, local jails, roads and hospitals, water supply and sanitation, and schools (often administered by distinct boards elected for the purpose of education). Municipalities generate their revenues mainly from taxes on real estate, fees for permits and licences and grants from the provinces. The total number of municipalities in Canada stands at about 4,500.

Many Canadian municipalities have economic development organizations to encourage growth and development of the local area. These organizations, often a department within the city administration, provide information and assistance to potential investors.

3.7 Languages

Canada's two major linguistic groups have been one of the dynamic forces that shaped the country and contributed to its unique character. To safeguard this heritage, the federal government has ensured that both English-speaking and French-speaking Canadians have equal opportunities to participate in Canada's future.

In 1963, the government appointed a Royal Commission on Bilingualism and Biculturalism to inquire into a wide range of questions relating to language and culture in Canada. Following the publication of the first volume of the Commission's final report, the federal government proposed an Official Languages Bill which Parliament adopted in July 1969, and which came into force in September of the same year.

The Act stipulates that "the English and French languages are the official languages of Canada" and that they "possess and enjoy equality of status and equal rights and privileges as to their use in all the institutions of the Parliament and Government of Canada".

The Act states that, in the National Capital Region and other areas where there is sufficient demand, federal government services shall be available in both official languages. A Commissioner of Official Languages reporting directly to Parliament, ensures compliance with the Act. It should be noted that the aims of the Act and federal official languages policy as a whole, is not to make all Canadians bilingual, but to ensure that, wherever they are reasonably concentrated, those who speak English and those who speak French may deal with the federal government in their own language.

The provinces have the responsibility of setting language policy within their own jurisdictions. New Brunswick is the only officially bilingual province. Other provinces provide services to the public in both official languages, where warranted.

4. ECONOMY

Canada's economy is the seventh largest in the western industrial world. With a 1985 gross national product of about $453 billion, it is also one of the most diversified. Canada grows, develops, mines, processes, designs, manufactures or fabricates everything from communications satellites to disease resistant wheat, from advanced aircraft to strategic ores and metals, and from nuclear power stations to newsprint.

4.1 Resources, Services and Manufacturing

Canada's economy has evolved from one based primarily on natural resources to one of the world's leading industrial economies, ranking fourth in gross domestic product per capita. The country's lakes, which account for more than 15 percent of the world's fresh water, generate up to 75 percent of Canada's power needs through hydroelectric energy. Manufacturing is a large contributor to the country's annual output, but as in other highly advanced countries, there has been a shift from a predominantly goods producing economy to a predominantly services producing economy.

Service industries such as trade, finance, real estate, insurance, personal and business services, account for some 64 percent of the country's domestic output in the 1980s. As such, they complement the important role played by Canada's resource industries and manufacturing concerns.

4.1.1 Post-War Development

Since1949, there have been changes in industrial output, but little in the way of structure. In 1949, gross domestic product was $15.3 billion; by 1985 it had increased almost 27 times, to $416 billion*. However, much of this increase was due to price changes. In constant dollars, actual or real output had just about tripled, representing real average annual growth of 3.2 percent per year.

Structurally, Canada's economy has undergone very few aggregate changes. The goods-producing sector accounted for 32.9 percent of the total in 1949 and 32.5 percent in 1984. Services accounted for the balance (67.1 percent and 67.5 percent in each of those respective years). Some individual industries within these sectors did show changes. All industries grew - some more than others, resulting in a different industrial distribution of the value of output. Agriculture, for example, accounted for 4.5 percent of the total output in 1949, but fell to 2.6 percent in 1984, although annual average growth was 1.6 percent. Mines, quarries and oil wells on the other hand, accounted for 1.6 percent of the total in 1949, but increased to 2.7 percent in 1984, having an annual average increase of 4.8 percent. The manufacturing industry showed a modest increase in its share, from 20.5 percent to 21.3 percent, while community, business and personal services fell slightly from 20.7 percent of the total, to 20.5 percent.

4.1.2 Canada's Economy in the 1980's

Canada's leading industrial activities are petroleum refining, motor vehicle production, pulp and paper milling, meat processing, iron and steel milling and machinery and equipment manufacturing.

Since the early 1970's, Canada's manufacturing industry has undergone profound technological changes. The advent of advanced electronics, robotics, computers and communications has brought Canada to the forefront in many areas of technology. Canada's industries are dedicated to serving world markets and increasingly, companies are moving towards world product mandating. The establishment of facilities and incentives in research, development and education in electronics hardware and software, are demonstrating Canada's aptitude in application and adaptability to advanced technology. Canada is on the leading edge of communications research (the telephone was invented here), especially in the development and application of communications satellites, fibre optics and cellular radio. Canada is a leader in the field of medical research, with such historic advances to its credit as insulin, the heart pacemaker and the cobalt bomb, used in the treatment of cancer. Canada has also made a significant contribution to space exploration by developing the Canadarm, the robot arm found on NASA space shuttles.

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* Gross national product ($453 billion), less indirect taxes, plus net investment income paid to non-residents.

4.2 Foreign Trade

In 1985, Canada exported approximately 26 percent of its gross national product and imported almost 23 percent of all the goods and services it consumed. In dollar value, Canada is the western industrialized world's eighth most important trading nation. The U.S. is Canada's most important trading partner. Other major trading partners include Japan, the United Kingdom, the Federal Republic of Germany, Venezuela, and Italy. South America, the Caribbean, Asia and Africa, also have important trade ties to Canada.

4.3 A Market-Based Democracy

Canada is a market-based democracy in which both the private and public sectors are active participants, when it comes to determining and developing what products are to be manufactured. A politically stable and democratic country, the basis of the Canadian economy is free enterprise, ranging from small, owner-operated businesses to large multi-national corporations. In some areas such as health, social services, communications and transport, government involvement has traditionally been extensive, owing to various geographic and demographic factors. Often, government programs are established to supplement those initiatives undertaken by the private sector. Such government programs are designed to expand and diversify the Canadian economy.

5. MINERALS, RESOURCES & ENERGY

5.1 Minerals and Resources

Canada ranks first in the world in mineral exports and third in mineral production, behind the United States and the Soviet Union. Canada is the world's largest producer of asbestos, zinc, silver, and nickel; the second largest producer of potash, gypsum, molybdenum, and sulfur; and is a leading producer of uranium, aluminum, cobalt, gold, lead, copper and iron. Mineral deposits are located in all regions of Canada. Table 4 lists the level of production and value of selected minerals.

5.2 Energy

Canada is a major producer of hydroelectricity, oil, and gas and, unlike most of its industrial partners, is a net exporter of energy (mainly gas and electricity). Canada is self-sufficient in oil, with crude petroleum being the largest single contributor to Canada's mineral output. In 1985, Canadian oil production averaged an estimated 246.7 thousand cubic metres per day. Proven reserves in 1984 (year-end) totaled 1124 million cubic metres. (Included are the arctic reserves and the vast deposits of the Alberta tar sands.) Canada also produced, in 1985, an estimated 87.7 billion cubic meters of natural gas. The United States imports about 4 percent of its natural gas requirement from Canada.

TABLE 4

SELECTED MINERALS - PRODUCTION 1984

Metals	tonnes *	$ million
Aluminum		
Cobalt	2.3	66.8
Copper	712.4	1351.4
Gold (thousand kilograms)**	81.3	1227.8
Iron Ore	41065.0	1470.9
Lead	259.4	190.8
Molybdenum	10.9	108.9
Nickel	174.2	1165.2
Silver	1.2	409.3
Uranium	9.7	916.3
Zinc	1122.1	1438.0
Non-Metals		
Asbestos (K tonnes)	836.0	413.0
Gypsum (K tonnes)	8725.0	69.2
Potash	7.0	759.3
Sulphur (K tonnes)	7.0	574.2

Source: Statistics Canada, Canada's Mineral Production 1984, (Cat. #26-202)
* unless otherwise indicated. (1 tonne = 2200 pounds.)
** 178,895 pounds.

6. EDUCATION

6.1 Compulsory Aspect

Canada has one of the most comprehensive and enlightened education systems in the world.

Canadians have a legal obligation to send their children to school upon reaching the ages of five, six, or seven, depending on their province or territory of residence, until they reach the minimum school-leaving age, which also varies between 15 and 16. Most children remain in school well beyond the compulsory age. Some parents choose to start their children's education as early as the ages of three or four by enrolling them in kindergarten or nursery classes.

6.2 A Provincial Responsibility

Responsibility for education rests with the provinces. Although each province has developed its own distinctive system, the general standards and course of study are similar across the country.

Provincial departments of education supervise their school systems, certifying teachers, providing financial assistance to locally elected school boards, and determining curricula. They also delegate authority to local boards for building and maintaining schools, hiring staff, and in certain cases, developing courses of special interest in their communities.

6.3 From Pre to Secondary School

In all provinces, education is divided into four levels: pre-school, elementary, secondary, and post-secondary.

Although Canadian children are not legally required to attend school until they reach entry age, many working parents may wish to enroll younger children in pre-school day nurseries or, they may go to local kindergarten classes.

By the time children reach the required school entry age in their area, they must be enrolled in elementary school, where their formal education will begin. Students normally complete their primary education in six to eight years.

Students then move on to secondary school, or high school, where they are usually given a choice of several programs. For example, they can pursue studies leading to junior or senior matriculation, enabling them to enter college or university, or they can opt for technical or vocational training to learn occupational skills and trades in preparation for employment.

Classes in both elementary and secondary schools usually begin in September and end in June. Most schools have mixed classes of boys and girls.

In some provinces, there are publicly supported separate schools which give special emphasis to religious teaching.

Less than five percent of Canadian students attend private schools. These schools do not normally receive government assistance. They usually follow the same curricula as public schools, but place more emphasis on preparation for further studies at the university level.

6.4 Universities and Colleges

More than half of all high school graduates enter post-secondary institutions - universities, colleges or specialized institutes. There are more than 60 universities in Canada. Student admission is decided solely by the university, but high school graduation is normally a pre-requisite. In general, equivalent certificates from other countries are accepted as qualifications for entry into Canadian universities. Roughly one-third of all university students are enrolled on a part-time basis.

The academic year at most universities lasts about eight months, starting in September. It takes from three to four years to complete a course of study and graduate with a bachelor's degree.

As an alternative to university education, more and more Canadian students are attending other institutes of learning at the post-secondary level, such as community colleges which offer one- to four-year courses in applied arts, business administration, and technology. High school graduation is generally required for entrance to community colleges, but criteria for admission tend to be more flexible than at universities.

6.5 Foreign Students

Foreign workers in Canada, with employment authorizations (work permits), whose children are with them and who have student authorizations (from Employment and Immigration Canada), may enrol their children in elementary and secondary schools in their area of residence. These students are accepted on the same terms as Canadians or permanent residents (landed immigrants). There is no differential fee. Persons in Canada on visitors' visas, with children, will either not be allowed to enrol children or be charged a fee to enrol them in elementary or secondary schools. These fees are generally between $4,000 and $5,000 per year, per student. Differential fees are charged for post-secondary education to non-Canadians or those without 'permanent resident' status. These fees can be as low as $1,100 and as high as $10,000 per year and are set by the individual institutions. Some institutions set non-Canadian student quotas.

6.6 Job-Related Skills

Training in job-related skills is also available at business colleges, vocational institutes and trade schools throughout Canada. Some high school education is usually required for entry to such courses, which may run from one to three years, depending on the skills to be learned.

Both federal and provincial governments assist apprentices in industrial and vocational training programs. Such programs combine on-the-job experience with classroom instruction and may extend over a period of two to five years. Two or more years of secondary school education are required for enrolment as an apprentice. On successful completion of training, apprentices receive a journeyman's certificate, which is a pre-requisite in certain work trades in Canada.

6.7 Adult Education

Adult education programs are in much demand in Canada. Every year well over a million men and women who have left the school system, return to attend day or evening classes at secondary and post-secondary schools. Their attendance may be either for their own enjoyment or in pursuit of a certificate, diploma or degree. Schools, including universities, often allow adult applicants who lack formal education requirements to enrol as special, or "mature" students. Also, adults often take correspondence courses to upgrade their knowledge or expertise, or to learn new skills.

In 1984/1985, the federal government spent $1.1 billion on institutional and industrial training. This was an increase of 6.7 percent over 1983/84. The provinces, for the same period, expended $537 million. A variety of adult education courses are also offered by professional and community associations, churches, libraries, businesses and government departments.

6.8 Universality and Funding

From the time children enter elementary school, until they progress through the secondary system, their education will be free, unless parents or guardians choose to send them to private schools. In some provinces, there may be a charge for textbooks and other school supplies. The public school system is financed by local taxes and government grants.

Fees are often charged at the pre-school level. These may vary considerably from province to province and from institution to institution, requiring careful comparison and consideration by parents before registration.

There are tuition charges for courses at the post-secondary level. Fees at community colleges are typically lower than those at universities or colleges. Business, vocational and trade schools also charge moderate fees. In Quebec, tuition is free at community colleges (known as CEGEPs - Collèges d'enseignement général et professionnel), and students pay only for textbooks.

Students often work during summer holidays to help pay for their post-secondary education. Provincial and federal governments provide assistance in the form of scholarships, grants and loans, but newly-arrived immigrants may not be immediately eligible for such assistance.

Provincial apprenticeship programs and federal training courses are usually free, and some students may even be eligible for a living allowance while training.

6.9 Language of Instruction

With the exception of Quebec, the language of instruction in schools, colleges, and universities is usually English. In areas with a large French-speaking population, instruction may be in French or English, or both.

In Quebec, French is the usual language of instruction. At the elementary and secondary levels, students must enrol in French-language schools unless their parents meet certain requirements stipulated by the Quebec Government. Immigrants who settle in the Province of Quebec must send their children to French-language schools, but an exemption may be obtained if their stay is a temporary one.

6.10 Facts and Figures

In 1983-84, education was the primary activity of 6,019,499 Canadians, or about 25 percent of the total population. There were 5,740,799 full-time students being taught by 338,329 full-time teachers in educational institutions. Education expenditures for 1983-84 reached $30.5 billion, or 7.8 percent of Canada's gross national product (GNP).

Lower birth rates in recent years and lower levels of immigration have resulted in an enrolment decline in elementary-secondary schools. This trend is expected to persist in the 1980s. In turn, post-secondary institutions will feel the effects of this trend.

Elementary-secondary enrolment in 1983-84 was 4,976,900, a decline of 0.4 percent from 1982-83, and of 15 percent from the all-time high of 5,900,000 recorded in 1970-71. Elementary enrolment is down 11 percent from the 1968 high of 3,844,000 to 3,426,508 in 1983-84.

Secondary enrolment patterns resemble those of the elementary level, but lag seven or eight years. The secondary decline is expected to last until the early 1990s.

Full-time post-secondary enrolment in 1983-84 was 763,895. University enrolment made up 59 percent of the total. However, the rate of increase during the past decade was lower than the community college sector, where full-time enrolment increased by 89 percent, from 166,100 in 1970-71 to 313,364 in 1983-84. Full-time university enrolment went from 309,500 to 450,531, an increase of 46 percent.

In 1983-84, 289,078 students graduated from secondary schools, a 5.5 percent increase over the previous year*.

Universities conferred 89,782 bachelors and first professional degrees, 13,925 masters degrees, and 1,821 students earned doctorates in 1983-84. Community colleges awarded 74,131 diplomas.

Expenditures for education from kindergarten through graduate studies reached $28.4 billion in 1982-83, up 11.6 percent over the previous year. Elementary-secondary education consumed about $19.0 billion of the 1982-83 total, universities $5.7 billion, community colleges $2.6 billion and vocational training $1.7 billion.

In 1981, the median number of years spent at school by Canadians was 11.8 years. This ranged from a low of 10.4 in the Northwest Territories, to a high of 12.3 in Alberta, British Columbia and the Yukon. By way of international comparison, Canada ranked second among OECD countries to the United States, which averaged 12.6 years, and ahead of Japan with 11.2 years. Some 9 percent of the Canadian population not in the regular school system had obtained at least some university or equivalent education, compared to 32 percent in the United States, 14 percent in Japan, 10 percent in the Netherlands, 5 percent in Germany, 4 percent in France, 6 percent in Sweden and 5 percent in the United Kingdom.

7. QUALITY OF LIFE

7.1 Standard of Living

Canada's overall standard of living ranks among the highest in the world. In terms of wealth, measured by Gross Domestic Product per capita, Canada, in 1983, ranked fourth, behind Switzerland, Norway and the U.S. With a population of 25 million, Canada's gross domestic product ranked seventh in the world in size, ahead of many, more populous countries. Canadians are a mobile people. With fair distances between major centres, 82 percent of Canadian households own automobiles, vans or trucks. This compares to 90 percent of U.S. households. Other western industrial countries such as Japan, France, Germany, and the U.K. have household vehicle ownership rates of between 60 percent and 70 percent. Canada also ranks very high in the percentage of households owning other durable goods, such as refrigerators (99 percent), washing machines (77 percent), telephones (98 percent), televisions (98 percent), radios (99 percent), and video tape recorders (23.4 percent)**.

Some 60 percent of Canadian families own their homes, the quality and size of which is among the highest in the world (see section 7.5).

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* Grade 12 was added to the Newfoundland curriculum, thus Grade 11 completors are not counted as graduates for 1982-83

** Statistics Canada, Household Facilities and Equipment, May 1985.

Canadians have extensive choice and supplies of food. The domestic food producing industry supplies a diversified range of fish, meats, vegetables, fruits and dairy products. A significant proportion of Canadian production is exported ($10.3 billion in 1984), including meat, fish, cereals and fruits. Because of the nature of the climate and length of growing season, food imports are also substantial ($5.8 billion in 1984), most originating from the U.S. and tropical countries.

From 1970 to 1982, prices in Canada rose by 270 percent. By comparison, prices increased by 437 percent in the U.K., 319 percent in France, 255 percent in Japan and 248 percent in the U.S. Food prices rose by 315 percent in Canada, compared to 463 percent in the U.K., 362 percent in France, 251 percent in Japan and 253 percent in the U.S., from where most of Canadian food imports originate. In 1985, Canada's consumer price index rose by only 4.0 percent.

7.2 Health

7.2.1 Provincial Plans and Services

Health services in Canada, as in other western industrialized countries, are expensive. To reduce the burden, the provinces act in concert with the federal government to provide extensive protection under medical and hospital care plans. As a result, most health costs are covered by public medicare insurance. Although both plans are national in scope, they are administered by the provinces and territories, and vary from province to province. In Ontario, Alberta, British Columbia and the Yukon, a premium is charged for coverage, while in others the cost of medical insurance is financed from taxation and everyone living in the province is covered.

Annual premiums for the following four jurisdictions are, as of February 1986; Ontario - $357 for singles, and $714 for families; Alberta - $168 for singles, and $336 for families; B.C. - $216 for singles, $408 for 2 persons, and $456 for families of 3 or more; Yukon - $240 for singles and $330 for families. By comparison, in the U.S., many employers (for example, the auto manufacturers) pay substantial sums to their workers in the form of health care insurance premiums, to cover either workers or their families. In some instances, this fringe benefit may amount to over $3000 per employee. In Canada, even if the employer pays the full cost per employee, basic hospital and physicians' services coverage would be no more than $714 per year.

Hospital and physician's services are generally covered by all plans. Family planning services - available from a variety of sources - are also usually covered, in whole or in part. A resident may be insured for special services, such as medical specialists and eye examinations, under some plans. Provincial medicare plans do not generally cover dental care unless dental surgery is done in a hospital. A number of provincial plans are being directed to meet the needs of specific population groups, such as mothers and children, the aged, the needy, and those requiring rehabilitation care.

It should be noted that prescription drugs are not normally covered. Some doctors also charge higher fees than those provided under the medical plan, thus requiring patients to pay the difference.

Most provincial plans give immediate coverage to newly-arrived immigrants. Canadians are paying increasing attention to illness prevention. There are a number of national programs to safeguard the public from health hazards. These include controlling environmental pollution, setting health and safety standards, and monitoring food-stuffs and medical drugs.

Efforts are also being made to encourage men and women to adopt a healthier lifestyle by reducing self-imposed risks. Government programs discourage careless driving and the abuse of drugs, alcohol, and tobacco. At the same time, they encourage exercise and physical fitness, both in and outside the workplace. Governments may also provide financial assistance to groups and organizations which promote recreational activities.

7.2.2 Life Expectancy

In terms of longevity, Canada is a good country in which to be born and reside. The average life expectancy for Canadian males, at birth, rose from 66.3 years to 71 years between 1959 and 1980. For females, the increase was from 70.5 to 79 years. This ranks Canada among the top ten western industrial countries. By comparison, in the U.S. the life expectancy of both males and females was 1.5 years lower. Canada's infant mortality rate decreased 67 percent between 1950 and 1980 to 12 per 1,000 live births. This is below the rate of 14 for the U.S., 15 for Australia and 17 for Italy, but above the rates of 8 and 9 in Finland, Denmark and Sweden.

Canadians averaged only 5 days in bed annually due to illness, compared to 7 in the U.S. and 10 in Norway. Only Ireland had a lower rate (at 4 days). Canadians rank ninth in the world and first in the western hemisphere on the physical quality of life index, which is a combined measure of life expectancy, infant mortality and literacy. Canada's score on the PQLI was 96 out of 100. The top score shared by Iceland, Japan, the Netherlands and Sweden, was 98; the U.S. ranked 11th, the United Kingdom 17th and Japan was second.

The Index of New Social Progress (INSP) is a combination of 55 factors measuring education, health, the status of women, defence spending, economic factors, demographic factors, geography, political stability, political participation, cultural diversity and welfare effort. Canada again ranks first in the western hemisphere and 11th overall, well above the U.S. (23rd), the U.K. (28th) and Japan (13th).

7.3 Crime

Canada is a comparatively safe place where, even in the larger metropolitan areas, people are not afraid to walk about at night. This situation is reflected in the lower crime statistics, as compared to the U.S., where restrictions on owership of concealed weapons are fewer. Canadians are not permitted to own or carry concealed weapons such as handguns or knives, without police authority. Rifles and shotguns may be licensed for hunting purposes.

Table 5 is a comparison of crime rates between Canada and the U.S. from the year 1980, and illustrates the number of incidents per 100,000 population. The Canadian rate for robbery is 42.4 percent that of the U.S., for armed robbery 36.8 percent, for homicide, 24.3 percent (1984). Violent crimes in Canada accounted for 6 percent of all crimes, compared to 20 percent in the U.S.

TABLE 5

COMPARATIVE CRIME STATISTICS - CANADA & U.S., 1980

	Robbery	Armed Robbery	Homicide	Violent Crimes (% of Total)
	(per 100,000 population			
Canada	102.7	55.8	2.5 (2.7*)	6
United States	243.5	151.5	10.3 (7.9*)	20
Canada as % of U.S.	42.2	36.8	24.3 (34.2*)	30.0

* 1984

Source: Canadian Banker, Toronto Star.

7.4 Suicide

The frequency of suicides is an expression of the state of the social environment. Canada, in 1980, had rates of 25 and 8 per 100,000 population, for males and females respectively. Among other OECD countries, the rate for males was as low as 8 in Spain, and as high as 48 and 49 in Denmark and Finland, respectively. For females, the range was narrower, between 3 and 26 in Ireland and Denmark. In the U.S., the suicide rates were 19 for males and 6 for females.

7.5 Housing

7.5.1 General Conditions

Canada has a population density of about 2.7 persons per square kilometer (7.0 per square mile), one of the lowest in the world. Canadians have always preferred to live in dwellings which afford a high degree of privacy. This is reflected in the comparative housing statistics. Among OECD countries, Canada has the lowest person per room density for principal dwellings at less than 0.5, compared to 0.9 in Ireland and 0.8 in Japan, Austria and Italy. Over 60 percent of Canadians live in dwellings with an occupation density of less than 0.5 persons per room. The U.S., which comes next, has only 50 percent of its population living under similar conditions. Well over half of Canada's seven million dwellings are single houses. Many contain more than five rooms, are well constructed and centrally heated. Almost 100 percent of Canadian households have piped water and amenities such as flush toilets and fixed baths or showers. By comparison, the U.S. is 1 or 2 points below. The majority of houses are generally well-maintained and often surrounded by attractive lawns with flower and vegetable gardens, shrubs, and shade trees.

7.5.2 Purchasing and Renting Homes

About 60 percent of Canadian families own their own homes. However, houses have become increasingly expensive and fewer people are purchasing them. The down payment for a first mortgage on a house can be as low as 5 to 10 percent of the total purchase price, but the costs of mortgages and maintenance have risen as the general costs of living have increased in recent years.

Offsetting these rising costs, is the assistance given to prospective homeowners, especially low income families, through the services of the Canada Mortgage and Housing Corporation, a federal crown agency. Provincial governments and agencies have also developed successful plans to help people purchase their own homes.

Because of the high cost of buying a house, many Canadians rent accommodation, especially in the inner zones of cities. However, as the demand for rental units has increased, so have the costs.

Whether for purchase or rent, homes in metropolitan areas are more expensive than those found in the surrounding countryside or in smaller communities. Most Canadian cities are surrounded by suburban areas where the bulk of new homes can be found and where a high proportion of the residents live. Many houses in these areas were built to accommodate moderate income earners, while others are more exclusive and quite costly. Older houses are usually found in the inner core of towns and cities or in rural areas.

The single-family house is the most popular dwelling in Canada. The majority of these structures are less than 40 years old and are generally in good repair. Houses vary considerably in size, style, and construction, and although there is no such thing as a typical home, most houses have central heating, electricity, hot and cold water, and a bathroom. Many houses have basements, garages or carports, and gardens.

Some older, larger homes have been converted into apartments. This type of accommodation is usually quite comfortable and the rooms may be more spacious than those found in modern apartment buildings. Converted apartments, or duplexes (complete floor of a house with a private entrance), are often located in the more established, residential sections of cities and towns.

7.5.3 Apartment Accommodations

Specially constructed apartment buildings vary in both size and luxury, and rents vary accordingly. Most apartments are equipped with stoves and refrigerators, and many have laundry, parking, and other facilities. Some buildings offer bachelor apartments, which are small self-contained units, usually suitable for single people or childless couples. Some apartments are furnished, but most are rented or leased unfurnished. Furnished apartments are usually quite expensive.

7.5.4 Condominiums

Condominiums may be contained in row houses or in high-rise apartment buildings. The individual units are purchased rather than rented. Condominium owners contribute to the collective costs of maintaining and servicing their complex as a whole and they elect their own representatives to direct and manage the complex.

7.5.5 Heating

Because of central heating and insulation, Canadian homes and apartments are generally comfortable. Insulation in the floors, walls and roofs of buildings retains heat in the cold winter months and keeps out excess heat in the summer. The cost of heating varies considerably according to the type of fuel used, the size of the house, and its insulation. Varying winter conditions in different regions also affect heating costs, which can be a major household expense.

TABLE 6

TYPES OF HOUSING OCCUPIED BY CANADIANS

	Single Detached House		Single Attached House		Apartment or Flat		Mobile		Total Dwellings	
% of people living in dwellings	56.7		8.6		32.3		2.5		100	
	Own	Rent	Own	Rent	Own	Rent	Own	Rent	Own	Rent
	91.0	9.0	51.2	48.8	13.9	86.1	87.4	12.6	62.7	37.3

Source: Statistics Canada, Household Facilities and Equipment, May 1985.

7.6 Leisure

The Canadian climate provides the opportunity for both winter and summer sports and activities. Abundant resources allow for such diverse pursuits as skating, skiing, camping, boating, swimming, cycling, golf, tennis, mountain climbing, hiking, or any other imaginable adventure.

7.6.1 Sports

Canadians participate and achieve significant results in many international sporting events. During the 1984 Olympic Games, Canada won a record number of medals. Canadians excel in winter sports and in 1984/85 were world champions in ice hockey, curling, speed skating, and figure skating. Not to be forgotten are Canadian achievements in summer sports such as track and field, water skiing, sailing, diving and swimming, where Canadians hold several world records and championships.

Canadians are also knowledgeable and fervent spectators. World class facilities, such as the Olympic stadium in Montreal, the domed coliseum in Vancouver, the proposed covered stadium in Toronto and numerous arenas and stadia in every major centre in the country, afford Canadians the opportunity of watching the best in the world perform.

7.6.2 Culture and Recreation

Canadians are a cultured and sophisticated people. In most major centres, there are professional and amateur theatre, dance and musical companies. There are excellent art galleries, museums and zoos. Cities have abundant parks and gardens. Canadian restaurants are renowned, and Canadian chefs successfully compete at the Culinary Olympics, winning several gold medals last year. The diverse ethnic mosaic of the population creates culturally-interesting and rewarding opportunities for both education and entertainment in just about any major Canadian location. Canada is not a cultural "melting pot", as is the U.S. Canadians are encouraged to preserve and nurture their cultural heritage. The major ethnic groups are shown in Table 7.

TABLE 7

DISTRIBUTION OF MAJOR ETHNIC GROUPS BY PROVINCE - 1981
(thousands)

	Can	Nfld	PEI.	N.S.	N.B.	Que	Ont	Man	Sask	Alta	B.C.	Yuk	NWT
British	9674	520	93	609	369	487	4488	374	366	963	1385	10	10
French	6439	15	15	71	251	5106	653	74	47	112	92	1	2
German	1142	2	1	33	6	34	373	108	162	233	188	1	1
Italian	748	*	*	3	1	164	487	10	3	27	53	*	*
Ukranian	530	*	*	2	1	15	134	100	77	137	64	1	1
Native Peoples	413	3	*	6	5	47	84	60	55	60	65	3	25
Dutch	408	1	1	13	4	8	191	34	17	65	72	*	*
Chinese	289	1	*	2	1	19	119	7	8	37	97	*	*
Scandinavian	283	1	*	2	2	4	40	25	43	79	85	1	1
Polish	254	*	*	2	*	20	123	28	18	37	24	*	*
Portugese	188	*	*	*	*	27	129	8	1	6	16	*	*
Greek	154	*	*	2	*	49	86	2	1	5	8	*	*

* Less than 500

Source: Statistics Canada (992-911), Census of Canada, 1981

Table 8 shows the way Canadians divide their leisure time among the various available pursuits.

TABLE 8

COMPARISONS OF WEEKLY FREE TIME BY ACTIVITY, CANADA & OECD

Activity	Canada	OECD High	OECD Low
	hours		
Watching TV	13.3	24.0 - Japan	7.2- Norway
Socializing	10.7	13.2 - Norway	2.9 - Japan
Reading	3.5	5.5 - Netherlands	2.6 - U.K.
Recreation	2.1	4.6 - Austria	0.3 - France
Culture	0.6	1.5 - U.K., Switz.	0.3 - France
Organizational	0.6	2.0 - Japan	0.2 - France

Source: OECD Social Indicators, 1982

7.6.3 Media

Popular activities in Canada also include watching television, listening to radio, reading newspapers, listening to records or tapes and reading magazines. Visits to bookstores, movies, and public libraries are also popular. Canada is well served in both official languages by national television networks (CBC and CTV), several regional networks (i.e. Global in Ontario, TVA in Quebec, etc.) and many independent television stations.

Most Canadians, including those in the far north, are accessed by television, either by individual antennae, community antennae or satellite relay. In addition, Canadians in mid-to-large sized locations have access to cable television. There are 2 national radio networks (CBC and CKO, a news network) and hundreds of independent radio stations, operating on AM, FM and Shortwave. All large population centres have at least one daily newspaper and most medium and smaller centres have weekly newspapers. Many are in languages other than English and French, serving local, ethnic communities. Canadians also publish nationally-distributed periodicals and trade magazines, some directed at specific strata of the population, occupational, business, or special interest groups.

7.6.4 Events

In all parts of Canada, annual events draw large numbers of visitors. Almost every community holds a winter carnival, the largest and most famous being the Quebec Winter Carnival in Quebec City. At other times of the year, annual fairs, trade shows, festivals, and exhibitions feature home cooking, handicrafts, horse shows, agricultural and other displays, parades, musical entertainment, and dancing. Many of the events, such as multicultural festivals, reflect our pioneering heritage and cultural diversity. Festival Canada is a month-long national event held in the nation's capital to celebrate Canada's birthday on July 1.

7.6.5 Vacations

Canadians usually take their annual vacation (typically up to 4 weeks, depending upon length of service) in the summer months, often spending their holidays in rented or privately-owned cottages in the country, near rivers and lakes. Others take motoring holidays, driving from place to place, enjoying a variety of events and scenic attractions. Many provincial, national and historic parks have camping facilities for those seeking a low-cost vacation. Privately-owned summer resorts provide more luxurious accommodation, full-course meals, and facilities for swimming, boating, fishing, and water-skiing.

7.6.6 National and Provincial Parks

Canada's national parks system began with a 26 square km (10.0 square miles) reservation of land around the mineral hot springs, in what is now Banff National Park. From this nucleus, the system has grown to include 31 national parks that preserve more than 129,500 square km (50,000 square miles) of Canada's natural areas.

Canada's national parks reflect the amazing diversity of the land. The program now extends from Terra Nova National Park, on the rugged eastern coast of Newfoundland, to Pacific Rim National Park, and from Point Pelee, Canada's most southerly mainland point, to Auyuittuq National Park on Baffin Island.

There is at least one national park in each province and territory. The mountain parks of British Columbia and Alberta, among the oldest in the system, are noted for their wildlife, craggy peaks, alpine lakes and meadows, glaciers and hot springs.

The magnificent scenery and numerous recreational possibilities of the national parks attract visitors year-round, whether to camp, sightsee, hike, mountain-climb, swim, fish, ski or snowshoe. Interpretive programs include guided walks, displays, films and brochures that explain the natural history of the park regions.

Provincial parks complement the National Park System, preserving locally-interesting phenomena not covered by the National Parks. Some of these include Dinosaur Provincial Park, outside Drumheller, Alberta, in which prehistoric dinosaur bones may be seen, but not excavated; Serpent Mounds, in southern Ontario, where ancient native burial grounds may be viewed; and, Kakabekka Falls, outside Thunder Bay, Ontario, containing a magnificent waterfall higher than Niagara Falls.

8. SCIENCE AND TECHNOLOGY

8.1 Canada's Spirit of Technological Innovation

Canadians have always been on the leading edge of scientific and technological innovation. Canada was among the first nations to develop powered flight; today Canadian technology is presently aboard the space shuttles, in the form of the Canadarm, the robot arm used to manipulate equipment in space. Canadians developed insulin, the heart pacemaker, and the cobalt bomb for treating cancer, medical advances which today save millions of lives, and Canadians continue to contribute to advanced research in biotechnology.

Canadian industry requires large amounts of power to function effectively. Canadians were and are still in the vanguard in the development of hydro-electric power generation (witness the James Bay development) but have not let the abundance of natural water resources slow the development of alternate power sources. The Candu nuclear reactor, in wide use in Canada and other parts of the world, has an enviable record of safety and reliable performance. Canadians are presently developing power systems sourced by the sun, the wind and the tides.

In agriculture, Canadians have developed Durum wheat, which is renowned for its yield and disease resistance. New agricultural and other food products are continuously being supplied to the world via Canadian research: products such as Canola and new wheat varieties, as well as Holstein genetics.

Canadians lead the world in cold weather oil production and recovery. The tar sands, straddling the Alberta-Saskatchewan border, contain almost as much oil as the Middle East. Canadians have developed methods of extracting tar sands oil and have already brought a few sites into production.

The telephone was a Canadian invention; today Canadian communications satellites are among the most reliable and consistent in orbit. Canada is spanned from coast to coast by micro-wave networks, and research and production is well underway into the establishment of fibre-optic communication systems, which can move many times more data than conventional wired systems, a requirement of significant impact in these days of high speed computer-based communications.

8.2 R&D Expenditures

Canadian industry has experienced a significant increase in research and development (R&D) expenditures. From 1979 to 1985, the expenditure level grew at an average annual rate of 15.1 percent. Industry's share of total R&D funding has also increased (from 32 percent in 1971 to 43 percent in 1985). Canada ranks eleventh in the world in terms of the number of resident scientists and engineers, and eleventh in the proportion of professional and technical workers of the labour force.

Canada is 15th in the proportion of GNP spent on scientific research and development. The federal and provincial governments have committed themselves to a close collaboration on formulating scientific and technological policies, with particular emphasis on the fostering of industrial R&D capability to respond to regional and national objectives.

8.3 R&D Tax Incentives

The Canadian Government provides support for technological development through a variety of mechanisms, ranging from tax incentives to grants, loans, contracts for goods and services, infrastructure support, and skills training related to high technology industries.

Expenditures of a current and capital nature may be written off in the year in which they are incurred, or may be capitalized and deducted, either in whole or in part, in any future year. A minimum 20 percent tax credit is available for all R&D with a 35 percent credit applicable to small businesses. The February 1986 budget proposed that the tax credit earned by small businesses for current expenditures on R&D continue to be fully refundable beyond 1988. Canada offers the most generous R&D tax treatment of all OECD countries, and is second only to Singapore in the world.

8.4 Federal Government Activity

8.4.1 University Research Support

Federal support of scientific activities in Canadian universities totalled $587.5 million in the fiscal year ended March 31, 1985. Of this total, the support of direct research and development costs in Canadian universities amounted to $474 million, an increase of 5 percent over 1983-84.

8.4.2 Organizations, Policies and Expenditures

The Ministry of State for Science and Technology, which was created in 1971, encourages the development and use of science and technology in support of national goals through the formulation and development of appropriate policies. Research grants, through MOSST's Natural Sciences and Engineering Research Council, the Medical Research Council of Health and Welfare and the Social Sciences and Humanities Research Council of the Secretary of State, are an expression of a science policy aimed at generating and maintaining national research capability.

Policies are also in place for the use of science to help Canada achieve non-scientific aims using scientific tools. The maintenance of research laboratories by science-based government departments (such as Energy, Mines and Resources, National Health and Welfare, Agriculture and Environment) and the contracting-out policy are expressions of this aspect of science policy.

The integration of science into public policy formulation is a relatively new development. To do this, the Government of Canada is recruiting both natural and social scientists into the federal public service, at the policy-making level, and using consultative mechanisms to incorporate the advice of the natural scientific community.

The Science Council of Canada is a science policy research institute established to advise the federal government and the Canadian public on problems and opportunities in Canadian science and technology. The published results of research in key areas of national science and technology policy are directed throughout Canada to government, industry, academic policy makers and increasingly, to the public through the mass media. The Council consists of up to 30 eminent individuals - mostly industrialists or academics - appointed by order in council who meet four times yearly to plan, evaluate and approve the major outputs from the Council's research program, which is carried out by a staff located in Ottawa. To date, publications by the Science Council comprise 33 policy reports, including recent Council positions on the impact of microtechnology on society and Canada's potential scientific and technological contribution to the food supply of developing countries. Background studies now number over 50, including papers on Canadian involvement in both international science and world food aid, and on the requirements of Canada's manufacturing sector. Upcoming major reports will focus on Canada's transportation systems, the interface between science and the legal process, industrial policies, biotechnology and science education. A catalogue is available from the Council's publications office, located at 100 Metcalfe Street, Ottawa, Ontario, K1P 5M1.

Total federal expenditures in the natural and human sciences were $4.0 billion in 1984-85, an increase of 11.5 percent over the preceding year. Nearly 20 percent of the government's expenditures were relevant to the social sciences and the other 80 percent to the natural sciences. The major spenders were the National Research Council (NRC), with 13.1 percent of the total, the Natural Sciences and Engineering Research Council (7.3 percent), Energy, Mines and Resources (9.7 percent), Environment (10.3 percent), and Agriculture (7.4 percent).

In 1984-85, about 38 percent of government expenditures went outside of government agencies, with $634 million going to industry and $588 million to universities.

The National Research Council (NRC) is an independent research agency established by Parliament to promote scientific and engineering research for Canadian development. Its activities include: basic and exploratory research in the natural sciences; research on long-term problems of national concern such as energy, food, transportation, building and construction; research in direct support of social objectives; the development and management of major national facilities; and research and services related to standards. These activities are carried out through in-house research programs, both internally generated and in response to requests from industry; through contracts with industry and universities; through financial contributions to industry research laboratories; and through a technical information service for Canadian industry. The Canada Institute for Scientific and Technical Information plays a key role in facilitating the use of this information by the government and people of Canada.

In the area of energy, the NRC has responsibility for co-ordinating all federal R&D activities concerning renewable energy - i.e. solar, wind, biomass, hydraulic and geothermal. In addition, the NRC is responsible for research programs on energy conservation in buildings, energy conversion and storage, the development of energy-conserving heat pumps, fundamental studies of nuclear fusion, and a number of smaller sub-programs.

One successful milestone in the NRC's space program was the first flight of Canadarm on board the National Aeronautics and Space Administration's (NASA) orbiter Columbia. Canadarm is Canada's $100 million contribution to the United States' space shuttle program. In return, Canada will receive special consideration on future shuttle payloads. NASA contracted with Spar Aerospace Limited, Canadarm's manufacturer, to produce an additional three manipulator arms, for a total of four.

9. BUSINESS ENVIRONMENT

9.1 Co-operation Between Government and Business

Perhaps the greatest advantage of having a business in Canada is the government's commitment to consult and co-operate with both the Canadian and non-Canadian business community. This type of co-operation ensures the proper infrastructure and environment for Canadian-based companies to compete more effectively against imports and in international markets. Government awareness of certain barriers to enterprise in Canada led to the development of a number of incentive programs. Federal, provincial and municipal programs range from financial loans, grants, and equity participation, to tax and duty remission, to employee relocation and training.

A system of pre-budgetary consultation was initiated by the government, during the May 23rd 1985 budget's planning stage. Meetings and hearings were conducted with business groups, labour representatives and other areas of Canadian society, to test their reactions to potential budgetary policy.

9.2 Deregulation

As part of the new co-operative spirit existing between government and business, certain industries have been marked for deregulation. Transport Canada Minister, Don Mazankowski, introduced in the House, a package of deregulation proposals affecting airlines, rail freight, trucking and shipping. Deregulation has already occurred to some extent in the oil and gas industry, passenger air service, telecommunications field (consumers are able to purchase telephone equipment from companies other than Bell Canada), and in the trucking industry. A greater degree of deregulation in these sectors is under consideration. A recent federal government discussion paper has opened the door to one-stop financial supermarkets, but only for trust companies, insurance companies and financial conglomerates. It is proposed, however, that chartered banks would not be afforded the same opportunity. There is also discussion about privatizing certain crown corporations or certain components of crown corporations. Northern Transportation Company Limited, a crown owned marine transportation company operating in northern Canada and the Arctic, was sold to private interests in the summer of 1985. De Havilland Aircraft of Canada Limited was sold to the Boeing Corp. of Seattle in January 1986.

9.2.1 The Crown Corporations and Privatization

The government's intention to improve the management and performance of Crown corporations was emphasized both in its November 1984 Economic Statement and again in the May 23, 1985 Budget. Privatization is one of the methods for achieving these goals.

Only those government corporate holdings which are clearly justified for public policy reasons will be retained. Activities which more properly belong in the private sector will be transferred there.

To ensure the government proceeds in a sound, business-like fashion, a special Ministerial Task Force, chaired by the President of the Treasury Board, has been created. Other members include the Minister of Energy, Mines and Resources, the Minister of Regional Industrial Expansion and the Minister of State (Finance). The government's goal is to develop a comprehensive privatization action plan. A list of corporations which are recommended as candidates for privatization has been identified (see Appendix I) and plans for the divestiture of each will be prepared.

Privatization will have a number of benefits. It will reduce the size of government in the economy and make room for private sector initiatives; it will improve market efficiency and the allocation of resources; it will improve firm efficiency through market discipline and by reducing political and bureaucratic impediments; and it will encourage, in certain cases, investment by Canadians through the direct participation in the ownership of major national corporations which they have supported as taxpayers.

Fiscal benefits have often been cited as a primary reason for privatizing Crown corporations. Sale proceeds, which could be substantial, will reduce the government's borrowing requirements. This, in turn, will reduce debt service charges that otherwise would apply, causing an indirect decline in the deficit. Privatization will lead to a direct reduction in the budgetary deficit only if the sale proceeds exceed the value of the government's investment as recorded in the Accounts of Canada. While reducing the government deficit is a high priority, in most cases, the direct budgetary impact of divestitures of Crown corporations is expected to be modest.

The government is also making progress in winding up corporations that no longer serve public policy purposes or that are inactive. Legislation has been introduced to wind up the Canadian Sports Pool Corporation, Loto Canada Inc. and Canagrex. Also, where the corporate mode of operation is inappropriate, the government plans to make certain corporations part of the Public Service. For example, the Canada Museums Construction Corporation has recently been folded into the Department of Public Works and wind-up proceedings are under way.

Over the next few months, the government intends to scrutinize the mandate, operations and role of Crown corporations to determine whether their continued existence as Crown corporations can be justified and, if not, to determine the optimal method for divestiture or reorganization.

9.3 Entrepreneurship

Small business is a major part of our economy, responsible for almost 80 percent of net new employment in manufacturing industries during the 1970s. To create a business climate which rewards the entrepreneur for individual initiative and risk-taking, the federal and other governments are examining their role in providing information and financial assistance. Current federal programs which apply specifically to small business - Federal Business Development Bank (providing loan and equity investment), the small business loans programs and the small business bond program - are also being examined to determine their appropriateness, given today's economic climate. New initiatives, with respect to special tax incentives for small business, at both the federal and provincial level, which would stimulate growth in the private sector, will be studied on an ongoing basis.

9.4 Business Immigrant Program

The objective of the business immigration program is to promote, encourage and facilitate the immigration of experienced business persons from abroad, who will make a positive contribution to the country's economic development, by applying their risk capital and know-how to Canadian business ventures which create jobs for Canadians.

The business immigration program is a compliment to the Government's broader strategy relating to foreign investment. The regulations and directives governing this program are designed to stimulate the economy by drawing a premium movement of qualified entrepreneurs whose business acumen and significant financial commitment will have a positive impact on job creation for Canadians.

The Employment and Immigration Commission (CEIC) has a comprehensive program which benefits from close inter-governmental cooperation, aggressive promotional efforts, active recruitment practices, and improved training and counselling techniques. This program structure maximizes the scope of the business immigration program so that Canada can derive the greatest possible benefit in terms of job creation and risk capital.

9.4.1 Business Immigrant Categories

The business program is composed of three main components: entrepreneurs, self-employed persons, and investors. The following are the regulatory definitions for each component.

(i) Entrepreneurs

Entrepreneurs are described as persons who have the intention and ability to establish, purchase, or make a substantial investment in a business venture in Canada, which the person will manage on an active basis. The venture must make a significant contribution to the economy and must result in the creation or maintenance of employment opportunities for one or more Canadian citizens or permanent residents, other than the entrepreneur and his dependents. This category accommodates experienced business persons whose background is oriented towards the management of small to medium size enterprises.

(ii) Self-employed

Self-employed immigrants are described as persons who have the intention and ability to establish a business in Canada that will employ only the applicant. The business must contribute to the economy, or the cultural or artistic life of Canada. This category accommodates individuals who, although they may not create or preserve jobs for Canadians, make a significant contribution in economic and artistic terms. Farmers, sports personalities, artists, members of the performing arts, and operators of small outlets qualify under this category.

(iii) Investors

Investors are described as persons who have a proven track record in business, and have a personal net worth of $500,000 or more. Investors are required to make an investment of a minimum of $250,000 for at least three years, in a project which has been assessed by the destination province as being of significant benefit to its economy, and which will contribute to the creation or continuation of employment opportunities for Canadian citizens or permanent residents, other than the investors and their dependants. Each investment proposal requires Government support. Applicants in the investor category have three investment options for their funds. They may choose to invest:

a) in a business or commercial venture;
b) in a privately administered investment syndicate, supported by the province in which the syndicate will make investments; or
c) in a government-administered venture capital fund, targetted to business development.

A summary of procedures governing the admission of investors is outlined in Appendix II.

Comprehensive procedures dealing with all three streams of business immigrants are now available.

By expanding the program, the Commission will have the legal base for accommodating risk ventures which provinces consider important to their regional economic development plans. At the same time, a select group of individuals possessing the substantial capital necessary to expand industries and generate jobs, will be attracted. Because this program is limited to those individuals who have been able to establish higher credentials, it should attract a new cadre of highly qualified individuals who can expand their opportunities in Canada.

9.4.2 Expansion of Program

The 1986-87 level for business immigrants has been set at 4,000, an increase of 82 percent over the 1985-86 level of 2,200. The Commission is hopeful that the expanded program, coupled with aggressive promotional efforts, more active recruiting and improved counselling techniques, will allow it to maximize the growth of this component of the immigration program.

9.4.3 Conditional Admission

Effective January 1, 1986, the use of conditional admission, as provided for under Section 15(1) of the Immigration Act, was extended to a term of up to two years for the entrepreneurial component of the business program.

Conditional admission replaces the use of provisional admission, introduced in January 1984, and allows the Commission to combine the best features of both procedures. This streamlined approach should result in quick access to Canada for qualified entrepreneurs and give them a period of up to two years to set up a suitable business. It will allow visa officers to issue immigrant visas to qualified entrepreneurs on the basis of a general business proposal, while giving the Commission the control necessary to ensure business plans are realized.

Conditional admission for a period of up to three years also applies to investors on an exceptional basis. This method could be useful when the province feels it would be beneficial to have the investor come forward but the three-year, tie-in requirement cannot be firmly established, or the details of the case have not been finalized.

9.4.4 Priority Processing

Given the employment opportunities which their activities will generate, all three streams of business immigrants will be given priority in immigrant processing, second only to family class members and refugees. Applications will be processed as expenditiously as possible.

9.4.5 Promotional Efforts

Business immigration is recognized as an important part of the government's overall strategy to attract new investment to Canada. The expanded business program will benefit from closer inter-governmental cooperation between the Canada Employment and Immigration Commission and such agencies as Investment Canada, the Department of Regional Industrial Expansion, and the Department of External Affairs. All these partners in the business immigrant program will cooperate in designing new informational brochures and other comprehensive promotional devices for use in Canada and overseas.

As part of its mandate, Investment Canada will be encouraging business investments and providing investment information seminars to facilitate economic growth in Canada, including immigration-related investments in priority countries. A structural link has been developed with Business Development Officers (BDO) abroad who will draw up unified action plans and receive financial support for directly promoting the Business Immigration Program. This coordinated approach will help maximize the impact of promotional efforts and ensure a comprehensive mechanism which should allow the CEIC to fully tap the potential which exists abroad.

9.4.6 Improved Counselling Techniques

In 1983, a special program was introduced to improve the quality of service to business immigrants. Certain visa officers at key business- receiving posts abroad have been provided with formal training so they can more knowledgeably counsel and select business persons. These visa officers are designated as Business Development Officers (BDO). Their primary responsibility is to recruit, counsel and select business immigrants and to liaise with interested provincial governments. The BDO is personally responsible for the progessional and expeditious handling of these cases. There are currently 51 BDOs stationed at 41 visa offices.

In addition, Commercial officers and Investment Counsellors abroad will be available to assist both Business Development Officers and business applicants who may require that additional source of advice. This publication is available to Business Development Officers. It should allow them to readily answer many questions likely to be raised by business immigration applications.

In Canada, Regional Business Coordinators, located at Regional Headquarters, and Business Development Counsellors, located in principal Canada Immigration Centres, will be available to counsel business immigrants. The Department of Regional Industrial Expansion will continue to counsel business immigration applicants on alternative geographic locations for proposals which have merit but may not be supported by the province of destination. Finally, the Federal Business Development Bank will offer a fully computerized national business/investor introduction service to allow foreign investors the means to find and invest in the type of business closest to their area of interest. These improved counselling techniques should allow a broad national approach to the business immigration program.

9.4.7 Business Visas for Visitors

Not all investors or business persons wish to immigrate to Canada. For those persons, the Commission introduced a Business Visa, effective January 1, 1986. Its intent is to facilitate the admission of business people who wish to enter Canada from time to time to oversee their investments or businesses. The visa are valid for one year and allow business persons multiple entry to Canada.

9.4.8 Results to Date of the Business Immigrant Program

The entrepreneur program has resulted in a significant amount of private capital relocating to Canada, in turn creating jobs. Data describing such activity is shown in Table 9. From 1980 to 1984, between 1,500 and 2,100 visas were issued annually under the program. In the 5 years shown, over $3.1 billion has transferred to Canada, creating at least 23 thousand jobs.

TABLE 9

BUSINESS IMMIGRANTS

	1980	1981	1982	1983	1984
Number of Visas Issued	1558	1893	2040	1982	2094
Estimated Capital Transferred to Canada ($ million)	360	441	677	843	817
Number of Jobs to be Created	2623	3123	4220	4597	8271*

* The 1984 figures reflect the introduction of the new program on January 1st, 1984. For purposes of this table, the data is based on the number of visas issued, as opposed to the actual number of landings, as in previous years. The data reflects the funds declared by each business person, and the job creation intentions of each. In previous years this data was based on the number of jobs which business persons were obliged to create under the regulations then in effect. The figure of 2,094 includes visas issued to 1,111 entrepreneurs, 809 self-employed persons, and 174 visas issued provisionally.

Source: Employment and Immigration Canada.

Business immigrants have come to Canada under the program from widely varied locations, shown in Table 10. Hong Kong has recently emerged as a prime source of candidates, comprising almost one third of the total number in 1984, up from 4.5 percent in 1982. The largest proportion of entrepreneur immigrants have located in Ontario, followed by Quebec and British Columbia. (See Table 11).

TABLE 10

BUSINESS IMMIGRANTS - TOP SOURCE COUNTRIES

	1982	1983	1984
Hong Kong	4.5	17.1	31.4
West Germany	19.9	19.9	9.7
United Kingdom	12.6	7.8	5.0
United States	8.1	6.3	4.8
France	8.7	8.2	4.5
Netherlands	4.5	1.8	2.3
Formosa	1.2	2.8	2.0
Israel	2.9	2.2	1.8
Lebanon	2.6	1.2	1.7
Phillipines	0.8	1.1	1.6

Source: Employment and Immigration Canada.

TABLE 11

BUSINESS IMMIGRANTS - PROVINCE OF DESTINATION

	1982 (%)	1983 (%)	1984 (%)
Ontario	35.6	38.8	47.0
Quebec	25.9	22.4	20.1
British Columbia	20.8	20.0	14.7
Alberta	8.5	8.2	7.9
Manitoba	5.2	6.3	5.9
New Brunswick	1.3	1.4	0.8
Nova Scotia	1.2	0.9	0.8
Saskatchewan	0.9	1.1	2.5
Prince Edward Island	0.3	0.5	0.2
Yukon & N.W.T.	0.0	0.4	0.1
Newfoundland	0.3	0.2	0.1

Source: Employment and Immigration Canada.

APPENDIX I

LIST OF CROWN CORPORATIONS SELECTED FOR PRIVATIZATION

1. Canadian Arsenals Ltd.

Head Office: Quebec, Quebec

Mandate: To provide an industrial base to fulfill the requirements of Canada's national defence for large calibre ammunition and complimentary products, with the assistance of the private sector as far as possible.

Total Assets: $88.9 million (March 31, 1984)

2. Canada Development Investment Corporation (CDIC)

Head Office: Toronto, Ontario

Mandate: To privatize its holdings while gaining a fair return for Canada, and in the interim, to ensure that its subsidiaries are managed in a sound commercial manner.

Background: CDIC was incorporated in 1982 to hold and manage enterprises and investments assigned to it by the federal government, and to divest those enterprises and investments when commercially feasible. Investments currently owned by CDIC, or assigned to it for management, include: Canadair, Eldorado Nuclear, Teleglobe, Canada Development Corporation and Massey-Ferguson. CDIC also briefly had responsibility for the government's interest in several East Coast fishery companies.

Subsidiaries for Sale:

a) Canadair Limited
Montreal, Quebec

Activity: Designs, manufactures and sells the Challenger 600 and Challenger 601 aircraft. Canadair's Challenger program commenced in late 1976, with commercial production beginning in 1982. Since that time, 78 Challenger 600 and 15 Challenger 601 aircraft have been sold and delivered. Canadair is currently producing Challengers at a rate of 1.5 aircraft per month which is consistent with market prospects for the Challenger.

Wholly-owned Subsidiaries: Canadair Services Limited
Canadair Inc.
Challenger Aviation Services GmbH

Assets: $276.7 million (December 1983)

Sales: $387.1 million (December 1983)

(b) Eldorado Nuclear Limited
Ottawa, Ontario

Activity: Eldorado is engaged in the mining, refining and conversion of uranium for sale as fuel for generating electricity in nuclear power reactors in Canada and abroad.

Wholly-owned Subsidiaries: Gulf Minerals Canada Limited
Uranery Canada Limited

Assets: $915.2 million (December 1983)

Sales: $154.0 million (December 1983)

(c) Shares of Canada Development Corporation (CDC)

CDIC has sold 23 million shares of the 30.7 million shares of CDC which it manages on behalf of the federal government. The 23 million shares were offered to the public in late August 1985 and were sold on the basis that half the purchase price was to be paid immediately and the remaining half was due in September 1986. CDIC continues to manage these shares until final payment is received in September 1986. The remaining 7.7 million shares of CDC are being held by the federal government for technical reasons, but will be sold in the future.

3. Teleglobe Canada

Head Office: Montreal, Quebec

Mandate: To establish, maintain and operate, in Canada and elsewhere, international telecommunications services for the conduct of public communications.

Assets: $574.6 million (9 months, December 31, 1984)

Revenues: $201.6 million (9 months, December 31, 1984)

RECENT PRIVATIZATIONS

(a) Northern Transportation Company Limited

Head Office:	Edmonton, Alberta
Mandate:	To provide economic, reliable and comprehensive marine transportation and related services on a profit-oriented basis in northern Canada and the Arctic.
Wholly-owned Subsidiaries:	Grimshaw Trucking and Distributing Ltd. Nortran Offshore Ltd.
Assets:	$76.0 million (December 1983)
Revenues:	$45.1 million (December 1983)

On July 16, 1985 the Minister of Transport announced that Northern Transportation Company Limited and its subsidiaries had been sold to two native peoples corporations - Nunasi Corporation and Inuvialuit Development Corporation.

(b) The De Havilland Aircraft of Canada Limited

Activity:	De Havilland designs, manufactures and sells aircraft and spare parts.
Assets:	$251.8 million (December 1983)
Sales:	$121.7 million (December 1983)

On January 31, 1986, the Minister of Regional Industrial Expansion announced the sale of De Havilland Aircraft of Canada Limited to the Boeing Corporation of Seattle.

APPENDIX II

IMMIGRATION PROCEDURES FOR INVESTORS

The following text is intended only as a summary of procedures to be used in the admission of investors.

Projects under the Associate Entrepreneur Program, which have received approval, will continue as planned. Alternately, if the project managers so desire, the projects could be redesigned to meet the regulations of the investor category.

1. Regulatory Definition

Investor means an immigrant who:

a) has operated, controlled or directed a financially successful business or commercial undertaking; and

b) has, by his/her own endeavours, accumulated a net worth of at least $500,000.

Based on this definition and the selection criteria outlined in Regulation 8(1)(c) (all factors of Schedule I except items 4 and 5), the investor will be assessed in accordance with the following:

Since applying for a visa, he/she has made an irrevocable investment of at least $250,000, for at least three years, which will contribute to the creation or continuation of employment opportunities for Canadian citizens or permanent residents other than the investor and his/her dependants:

i) in a business or commercial venture to establish, purchase, expand or maintain the business or commercial venture or a part thereof which will be of significant economic benefit to the province in which it is located;

ii) in a privately administered investment syndicate supported by the province, in which the syndicate will make investments, the main purpose of which syndicate is to provide equity or loan capital to establish, purchase, expand or maintain business or commercial ventures which will be of significant economic benefit to the province in which the syndicate makes the investments; or

iii) in a government-administered capital venture fund, the main purpose of which is to provide equity or loan capital to establish, purchase, expand or maintain business or commercial ventures.

2. Intent of the Definition

a) To give the Commission the legal basis to accommodate those risk ventures identified by the provinces or the federal government as being important to economic development plans, while attracting a select group of qualified individuals who have a more substantial capital base to expand the industries and generate the jobs which Canada needs;

b) By allowing these investors to inject only a portion of their monetary assets in projects supported by the government, the Commission will ensure that the investor is still in a financial position to make a positive contribution to the Canadian economy through possible involvement in other business ventures which could have the capacity of generating returns more quickly.

3. Conditions for Issuance of Visa

All investments must be confirmed in writing before an immigrant visa is issued to an investor. The investment must meet the following conditions:

1) $250,000 minimum;
2) irrevocable for at least three years;
3) supported by the province of destination;
4) contribute to employment opportunities for Canadian residents.

Regulation 9(3) states that any investment may have a condition that it is refunded if the investor is not granted an immigrant visa. This is the only condition that does not negate the irrevocable aspect of an investment commitment. Any other provision for a refund would render it revocable. Consequently, the investment would not meet CEIC requirements.

4. Processing of Applications

a) Documentation required

Applications for permanent residence should be submitted to a visa office, usually in the applicant's country of residence, and be accompanied by:

(i) a curriculum vitae and a description of the applicant's business, industrial or managerial experience;

(ii) a statement of resources, showing funds ($ Canadian) already in Canada, funds available for immediate and later transfer and proof of ownership;

(iii) a written indication of the business, venture, investment syndicate or fund he/she wishes to invest in, including the province of destination;

(iv) for those investing in a private business or commercial venture, an indication of the jobs which will be created or maintained for Canadian residents.

Upon receipt of this documentation, the BDO will be in a position to review the application in detail and provide further counselling, as required.

b) Early Refusals

The program demands that the investor have a proven business background. The BDO should therefore concentrate on the client's proven abilities and business reputation. If the applicant's business experience is weak, the application should be refused without further referral. If the applicant presents an investment proposal not previously reviewed by provincial authorities and one which is not well thought out, weak, and unlikely to be approved, the BDO may refuse the application without further referral.

c) Decision on Admission

Projects recommended by the province will normally be approved unless regulatory requirements are not met or the BDO is of the opinion that the applicant does not have the mandatory business experience. If the selection decision is positive, once the background, health, and all other statutory and regulatory immigration requirements have been met, an immigrant visa should be issued. A copy of the IMM 1000, including final destination address in Canada, and the estimated date of arrival, if known, should be sent to the appropriate regional/provincial officials.

Investors will be processed according to the method of investment chosen.

d) Method of Investment

i) Private Business or Commercial Venture
ii) Privately Administered Investment Syndicate
iii) Government-Administered Capital Venture Fund
iv) Private Business or Commercial Venture

A) Single Applicant:

- In cases where the applicant appears to meet the requirements and the investment proposal has merit, arrangements will be made for referral of the investment proposal to the applicable province (using the same guidelines and procedures applicable to entrepreneurs). A copy should be provided to the Regional Business Coordinator. Provincial support is required for all investment in private businesses or commercial ventures.

- At this point, routine medical/security screening should be initiated, with the concurrence of the applicant, as in the entrepreneur component.

- The province should reply within a maximum of 30 days. The correspondence should clearly reflect whether the province supports the investment proposal.

- In addition to satisfying the requirements of the Act and Regulations, the investor must satisfy the BDO that the investment of $250,000 is tied in for a minimum period of three years before the visa is issued. This would usually take the form of a legally binding contractual agreement between the Canadian investee and the foreign investor.

B) Multiple Applicants

- Some Canadian business ventures will be seeking to recruit a number of foreign investors to provide the project with the necessary capital base.

- These business ventures must receive provincial approval before recruitment activities can start. The project description must include the minimum number of applicants required in order to allow it to begin and proceed to completion. The project should also include the names of those countries where the recruitment activities are likely to take place so visa offices abroad can coordinate their activities.

- Because recruitment activities can be difficult and complex, it is not anticipated that these projects will be numerous, or that they will involve large numbers of applicants. However, in cases which are allowed to proceed, it is imperative to ensure proper coordination and cross reference between visa offices and regional headquarters involved. Regional headquarters will assume a liaison role between all parties. The province will refer a project which they support to regional headquarters. The regional headquarters will liaise with all visa offices involved and will advise the Chief, Monitoring Analysis Division, Operations Branch, NHQ.

- Applicants can be processed as they are identified, but actual issuance of the visa will be withheld until such time as all applicants required to raise the necessary capital, have qualified for immigration purposes.

- Once a project has been identified as being supported by the province, BDOs will not need to refer individual applicants to the province, but should inform regional headquarters and other visa offices who may be involved in the recruitment activities of any applicant who has qualified.

- Regional offices should advise the Chief, Monitoring Analysis Division, Operations Branch, NHQ, of the final outcome of these cases.

ii) Privately Administered Investment Syndicate

Provincial support of the investment syndicate is required. Regional headquarters should work closely with provinces in this respect. Once a province has indicated its support of a particular syndicate, regional headquarters should immediately inform the Chief, Admissions Procedures, Operations Branch, NHQ, who will ensure that the syndicate is identified to all visa offices and listed in an appropriate appendix of the Immigration Manual. BDOs should check with the appropriate region if a syndicate is not identified in the Manual. Having established that the investment syndicate is supported, the overseas process will be limited to assessment of applicants to ensure that they meet the definition of investor and that all other immigration requirements are satisfied.

In the case of multiple applicants required to start up a syndicate, the procedures outlined in paragraph 4(d)(i)b) will apply.

iii) Government Administered Capital Venture Fund

Government-administered Capital Venture Funds will be identified in the same manner as (ii) above and listed in an appropriate appendix of the Immigration Manual. As with the privately administered investment syndicates, the individual applicants need not be referred to the provinces. Instead, the BDOs must satisfy themselves that the required investment has been made with an approved fund and that the applicant meets all other requirements of the Act and Regulations.

5. Methods of Admission

a) There are two methods of admission available to BDOs: unconditional landing and conditional landing.

Because of the nature of this component of the program, it is expected that unconditional landing will be used in the majority of cases.

i) Unconditional Landing

An unconditional immigrant visa means that permanent residence will be granted with no terms or conditions as to the investment. This will occur when:

- the BDO is fully satisfied with the investor's qualifications and resources, and the province or federal agency is satisfied as to the economic benefits of the investment;
- the investor has made an irrevocable investment, confirmed in writing, of at least $250,000 for a period of three years in a business, private syndicate, or government venture fund, which has been supported by the appropriate level of government and which will contribute to the employment of Canadians;
- the investor has been found admissible under statutory Immigration requirements.

ii) Conditional Landing

In the case of investors, conditional admission, for a period of up to three years, should only be used in rare cases, since investors are required to actually commit their investment before receiving a visa. However, this method of admission may be useful in giving BDOs added flexibility to deal with special, deserving cases where the project is worthwhile but the investor may not be able to fully satisfy the BDO that all requirements have been met. This could occur in instances where final details have not yet been completed but the province feels it would be beneficial nonetheless to have the investor come forward, or where the three-year, tie-in requirement is not firmly established. It is expected that these situations should only occur when investors are choosing to invest in a private business or commercial venture with Canadian partners.

b) Refusals

Cases in which the province does not recommend acceptance of the investment proposal will be refused on the basis that the investment proposal would not be of significant benefit to the province, as required by the regulatory definition. In the event that a refusal is contemplated because of failure to meet statutory requirements, the province should be informed, through the Regional Business Coordinator. Time should be given for the region to consult with the province so it may provide comments before prospective immigrants are informed of the negative decision.

In cases where the province has indicated that it will not support the investment proposal but the applicant appears qualified, BDOs should be prepared to assist investors in locating other potential opportunities before a final decision is reached. In that respect, the aid of trade or commercial officers should be sought.

6. Business Development Officers Stationed Abroad

Fifty-one visa officers have now received formal training as Business Development Officers. They are currently posted in the following offices throughout the world:

Abidjan
Amman-Damascus
Athens
Atlanta
Bangkok
Berne
Bogota
Bonn
Bridgetown
Brussels
Buenos Aires
Buffalo
Cairo
Chicago
Detroit
Hong Kong
Kingston
Kuwait
Lisbon
London
Los Angeles
Manila
Marseille
Mexico
Minneapolis
Nairobi
New Delhi
New York
Paris
Port of Spain
Pretoria
San Francisco
San Jose
Santiago
Seattle
Seoul
Singapore
Stockholm
Syndey
The Hague
Vienna

SUMMARY OF BUSINESS IMMIGRATION CATEGORIES

Category Intended For:	Persons who have operated, or directed a financially successful business or commercial undertaking but who will not be actively involved in the management of the investment in Canada.	Experienced business persons whose background is oriented toward the management of small to medium-sized enterprises and who will manage the business they establish.	Individuals who, although they may not create or preserve jobs for Canadians, nevertheless make a significant contribution in economic and artistic terms such as farmers, artisans, sport personalities.
Qualifications	o successful business background through the operation, control or direction of a financially successful business or commercial undertaking. o Personal net worth of $500,000.	o proven track record as a successful business person. o intention and ability to establish a business in Canada employing at least one Canadian resident.	o proven track record as a successful business perso o intention and ability to establish a business in Canada employing self.
Requirements (i) investments/ benefits	o irrevocable investment of $250,000 for at least three years in a business, private investment syndicate or government capital venture fund which is identified by the provincial or federal government as being of significant economic benefit.	o establish, purchase or make a substantial investment in a business venture which will make a significant contribution to the Canadian economy.	o establish a business in Canada which will contrib to the economy or the cultural or artistic life in Canada.

(ii)	employment	o investment must result in creation or continuation of employment opportunities for Canadian residents.	o business must result in creation or maintenance of employment opportunities for one or more Canadian residents.	o employs only the applicant.
(iii)	management	o no active management	o must manage business on an active basis.	o must manage business on an active basis.
(iv)	other	o must meet requirements of Act and Regulations.	o must meet requirements of Act and Regulations.	o must meet requirements of Act and Regulations.
		o must possess sufficient additional funds to maintain self and family in Canada.	o must possess sufficient additional funds to maintain self and family in Canada.	o must possess sufficient additional funds to maintain self and family in Canada.

THE ECONOMY

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THE ECONOMY

1. AN ECONOMIC PROFILE

1.1 Size and Diversity

Canada's economy ranks seventh among western industrialized countries in the value of goods and services produced. In terms of per capita output, Canada and Norway are closely matched and rank behind only the economies of the United States and Switzerland. By mid-1985, Canada's gross national product stood at almost $450 billion.

The Canadian economy is one of the world's most diversified. Canada presently grows, mines, processes, develops, designs, fabricates or manufactures everything from disease-resistant wheat to communications satellites, from strategic ores and metals to advanced aircraft, and from newsprint to nuclear power stations. Agriculture and other primary production play a small, but key, role in the economy.

Manufacturing makes a much larger contribution. Major manufacturing sectors include transportation equipment, food and beverages, paper and allied products, primary metals, fabricated metals, and chemicals. As in other advanced countries, a gradual shift from a largely goods-based economy to a predominantly service-producing economy has occurred.

Service industries such as finance, real estate, insurance and personal and business services, which now account for some 64 percent of the country's domestic output, complement the important role played by Canada's resource industries and manufacturing concerns.

Canada's manufacturing industry is undergoing profound technological changes. The advent of new technologies in electronics, robotics, computers and communications, has brought Canada to the forefront in many areas of technology.

Canada's industries are dedicated to serving world markets. Adaptability and aptitude in technology are shown in increased facilities and incentives in research, development and education, and advances in electronics hardware and software.

Canada is on the leading edge in communications research, especially in the development and application of fibre optics and cellular radio. The Canadarm, the robot arm installed on NASA space shuttles, was also developed here.

Canada is a leader in the field of medical research, with such historic advances to its credit as insulin, and cobalt treatment of cancer.

1.2 The Importance of Trade

In 1985, Canada exported goods and services amounting to approximately 31 percent of all its Gross National Product and imported almost 32 percent of all the goods and services it consumed. By dollar value, Canada is the western industrialized world's sixth most important trading nation, and the U.S. is our most important trading partner. Other major trading partners include Japan, the U.K., the Federal Republic of Germany, France, South Korea, China and the U.S.S.R. Canadian businessmen are very active in South America, the Caribbean, Asia and the Pacific.

1.3 The Private and Public Sectors

The Canadian economy is based on the free enterprise system. Its business activities are varied, ranging from small, owner-operated businesses, to large multi-national corporations. Often, government programs are established to supplement initiatives undertaken by the private sector and are designed to expand and diversify the Canadian economy. Government also provides health care and other social services and supports certain sectors such as communications and transport, though steps towards deregulation are taking place.

1.4 Population and Labour Force

The Canadian population stood at some 25.4 million on June 1, 1985. Growth over the last 10 years averaged about 1.1 percent.

The civilian labour force grew at a much faster rate, averaging 2.4 percent per year, climbing from 10.0 million in 1975 to 12.6 million in 1985. This reflected increased labour force participation where rates increased from 61 percent in 1975 to 65 percent in 1985, mainly due to an increase from 40 percent to 52 percent for women aged 25 and over. In fact, the rate of male participation declined over the period from 82 percent to 77 percent, as males opted to remain in school longer and began to take on new societal roles.

Over most of the 1960's and 1970's, Canada had the fastest growing labour force in the western industrialized countries which comprise the Organization for Economic Cooperation and Development (OECD).

The number of employed Canadians during this period increased from an average of 9.3 million in 1975 to 11.0 million in 1981. Employment declined to 10.6 million in 1982, and recovering from the recession, grew to 11.0 million in 1984. Further gains were achieved in 1985 to reach a level of 11.3 million. Paid workers comprised about 88 percent of the total.

Overall annual employment growth averaged 2.0 percent over the 1975-85 period, only slightly below the exceptional expansion of the labour force. As a result, the number of unemployed grew from an average of 690 thousand in 1975, to 1.45 million in 1983, before declining to 1.40 million in 1984 and decreasing further to 1.33 million in 1985.

A regional comparison of the labour force is shown in Table 1.

TABLE I

REGIONAL LABOUR FORCE, EMPLOYMENT AND UNEMPLOYMENT

Region	Labour Force (,000)			Average Annual Growth (%)		Employed (,000)			Average Annual Growth (%)		Unemployment Rate		
	75	84	85	75-84	84-85	75	84	85	75-84	84-85	75	84	85
Atlantic	787	955	977	2.2	2.3	710	810	822	1.5	1.5	9.8	15.2	15.9
Quebec	2647	3123	3181	1.9	1.9	2434	2722	2804	1.3	3.0	8.1	12.8	11.8
Ontario	3818	4666	4787	2.3	2.6	3576	4243	4402	1.9	3.7	6.3	9.1	8.0
Prairies	1635	2246	2263	3.6	0.8	1570	2025	2055	2.9	1.5	4.0	9.8	9.2
B.C.	1087	1410	1431	2.9	1.5	995	1202	1228	2.1	2.2	8.5	14.7	14.2
Canada	9974	12399	12639	2.5	1.9	9284	11000	11311	1.9	2.8	6.9	11.3	10.5

Source: Bank of Canada Review, Statistics Canada

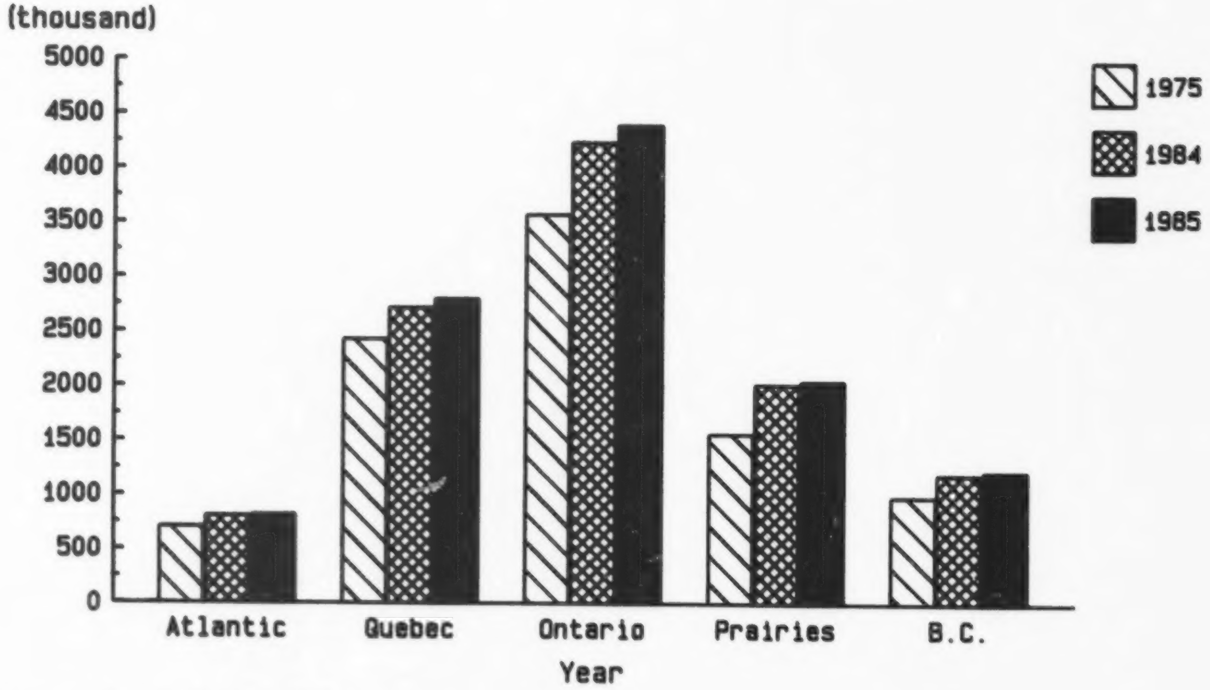
1.5 Job Creation

Employment in Canada increased at an annual average rate of 3 percent over the period 1960 to 1981. This record was the best in the western industrial world, and 50 percent better than the record of the U.S., which created employment at an annual average rate of 2 percent over the same period.

From 1970 to 1984, annual employment growth averaged 2.4 percent, second in the OECD. During this interval 3.2 million net new jobs were created. From 1973 to 1984, Canada had the best record of job creation in the OECD, resulting in 28 percent more jobs, compared to 25 percent in the U.S., 12 percent in Japan and zero percent in West Germany. OECD estimates for 1985 place Canada in the lead for job creation among the seven largest industrial countries.

At the end of 1984, the absolute number of employed persons in Canada was at an all-time high, with some 356,000 jobs created between the recession year of 1982 and 1984. During 1985 alone, 311,000 more jobs were created. Forecasters predict that Canadian employment will grow by about 2 percent annually through to the end of the decade.

Total Employment by Region



Source: Bank of Canada Review,
Statistics Canada.

In regional terms, the fastest growth during 1985 was centered in Canada's largest province, Ontario. Employment increased by 3.7 percent, compared to an average 1.9 percent over the 1975-84 period (see Table 1). The next largest increase, during 1985, took place in Quebec where the gain was 3 percent, up noticeably in relation to the longer term average of 1.3 percent. In British Columbia and the Atlantic regions, increases last year matched or slightly exceeded the respective rates for these regions over the 1975-84 period. Job growth in the Prairie region, during 1985, slowed from its earlier average pace, but labour force growth slowed still more, resulting in a reduction of the unemployment rate to 9.2 percent. The Atlantic region followed a largely opposite pattern - a slight increase in the labour force, during 1985, from its longer term rate, accompanied by no change in job growth. Accordingly, the unemployment rate for the region further increased in 1985.

2. ECONOMIC PERFORMANCE & STRUCTURE

2.1 Growth of GNP

In constant dollar terms, the Canadian economy grew at an average rate of 3.2 percent from 1975 to 1981. Activity declined (4.4 percent) with the 1982 recession, but had recovered by the end of 1983.

Somewhat different patterns characterized the domestic and trade components of the economy. At the 1981 peak, Canada's real trade in goods and services was in deficit, but moved into approximate balance during 1982 and 1983. Domestic demand remained below 1981 levels as the investment component weakened and government current spending remained static. This situation continued in 1984, while consumer expenditures continued their post-recession improvement, bringing overall domestic demand back to 1981 levels by the end of the year.

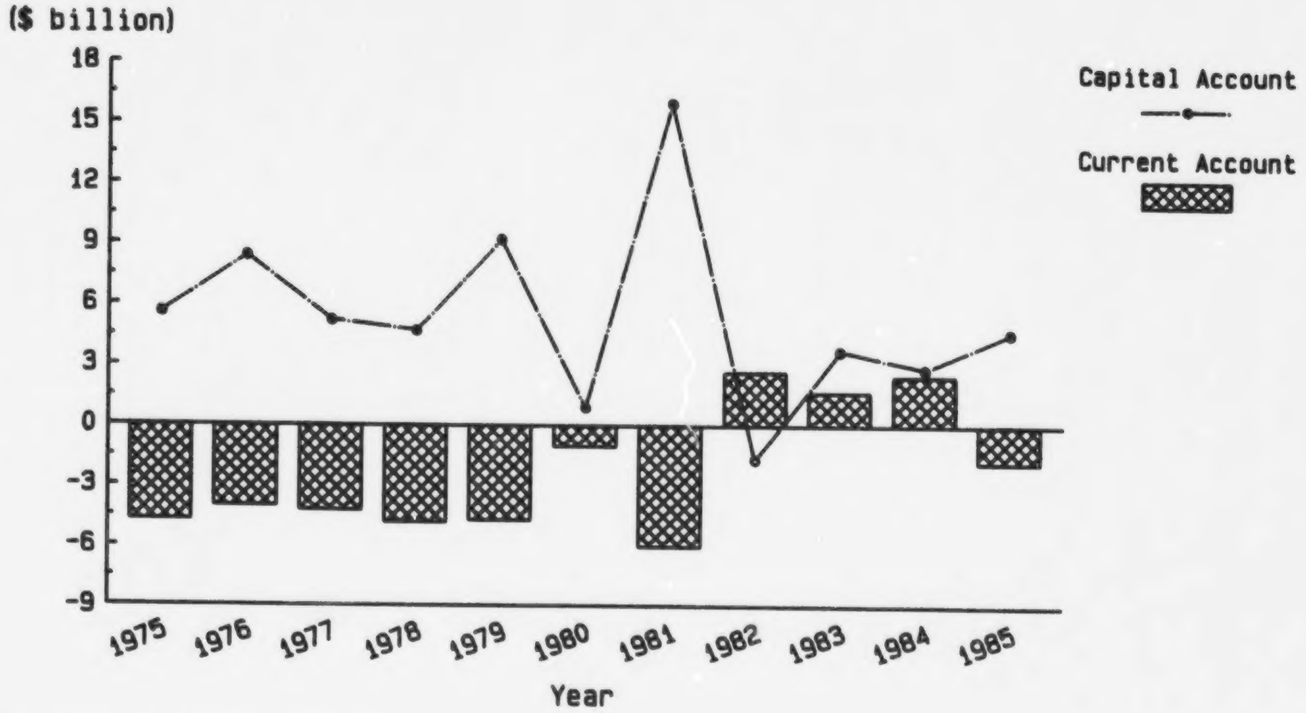
A strong trade surplus brought total economic growth, in 1984 to 5.0 percent compared to an annual gain of 3.3 percent in 1983. Real growth, in 1985, approaching 4.5 percent was centered on domestic demand, with less emphasis on trade. Consumption outlays continued to contribute strongly to the domestic component as it had done previously, except that a long-delayed improvement in business investment began providing more balanced growth. Real investment by the private and public sectors comprised about 20 percent of economic activity in 1985.

2.2 Balance of Payments and Exchange Rates

The balance of payments is made up of two parts: the current (or merchandise) account which measures the value of trade in goods, services and transfers; and the capital account, which measures trade in funds (i.e. direct investment, bonds, stocks, and payments into and out of Canada (see Table 2).

Historically, the current account has shown a surplus in goods and a deficit in services. The current account showed a net deficit from 1975 to 1981, but in 1982, the surplus in goods was larger than the deficit in services. This was repeated in 1983 and 1984, producing a net inflow of funds to Canada on current account. In 1985, a net deficit on current account was once again indicated.

Balance of Payments – 1975 to 1985



Source: Bank of Canada Review.

TABLE 2

BALANCE OF PAYMENTS - 1975 TO 1985

($ million)

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985*
Current Account:	-4757	-4109	-4334	-4917	-4840	-1114	-6065	2665	1686	2553	-1927
Merchandise Trade:	-451	1559	2975	4315	4425	8778	7328	17813	17705	20668	16900**
Services:	-4686	-6198	-7722	-9282	-9931	-11093	-14905	-16520	-16801	-19056	-19879
Transfers:	380	530	413	50	666	1200	1412	1371	781	940	1052
By area											
United States	-4810	-4217	-4022	-4321	-7581	-7819	-7800	-1369	1973	6679	7059
United Kingdom	658	606	274	157	562	1614	911	353	216	-447	-1776
Other EEC	53	267	-342	-932	153	2016	228	-328	-1712	-3628	-4988
Japan	1045	901	758	654	1919	1552	246	866	168	-342	-864
Other OECD	-687	-584	-542	-838	-602	56	-326	-1489	-2097	-2447	-3054
All Other	-1016	-1082	460	363	709	1496	674	4631	3137	2905	1372
Capital Account:	5555	8398	5174	4744	9161	941	15955	-1751	3680	2755	4648
Long-Term	3935	8021	4284	3221	2112	1112	175	8314	1819	2848	3001
Short-Term	1620	377	890	1523	7049	-171	15780	-10065	1861	-93	1647

* Three quarters annualized.

** Eleven months annualized.

Source: Bank of Canada Review.

The less favourable balance in 1985 reflected a strengthened demand for services purchased abroad, though the change was modest compared to 1984. Very high 1984 levels did not continue on the merchandise trade side, but the merchandise balance was still strong by past standards, and broadly in line with levels in 1982 and 1983.

The strong merchandise trade component reflects any number of individual competitive situations. In a general way, it reflects the increase in the purchasing power of the U.S. dollar for extensive exports to the U.S., and an increase in the purchasing power of the Canadian dollar which has been high relative to currencies of many other countries selling into the Canadian market.

Apart from the U.S. dollar and the yen, other major currencies have progressively declined against the Canadian dollar during the 1980s, with some firming up during 1985 (see Table 3). The U.S. dollar gained 17 percent, in terms of the Canadian dollar, between 1980 and 1985. The yen gained 11 percent. However, in 1985 the French franc dropped 45 percent below its 1980 exchange value with the Canadian dollar. The British pound fell 35 percent, the German mark, 27 percent, and the Swiss franc, 20 percent.

Canada experienced current account surpluses over the years with the U.K. and Japan; large deficits with the U.S.; a mixed performance with the EEC; deficits with other OECD countries; and generally a surplus with other countries (see Table 2).

Overall, the deficits with the U.S. were sufficient to result in a net current account deficit. Beginning in 1983, however, a sharp reversal in pattern has taken place in Canada's balance with the U.S. Canada's positive balance with the U.S. in 1983, increased markedly in 1984 and rose further still in 1985. In addition, Canada continued to show a surplus with non-OECD countries as it has from 1977. By 1984, balances had become negative in OECD areas other than the U.S.

Canada normally experiences a net inflow of both long and short term capital. In 1982, a large outflow of short-term funds was sufficient to offset the inflow of long-term funds. This resulted in a net movement of capital out of Canada, but in subsequent years, the long-run historical pattern of net capital inflows re-asserted itself.

2.3 Industrial Growth During the 1980's

Important real increases in sectoral activity have marked Canadian industrial performance in the 1980's. Measures of Real Domestic Product (RDP) or constant dollar value added of production within Canada, indicate that solid gains have been achieved by mining and manufacturing in rebounding from the recession. In the service sector, the effect of recession was brief or little apparent (see Table 4).

TABLE 3

EXCHANGE RATES

Canadian dollars per unit of:

Year	U.S. Dollar	British Pound	French Franc	German Mark	Swiss Franc	Japanese Yen
1980	1.1690	2.7196	0.2771	0.6444	0.6986	0.005183
1981	1.1990	2.4287	0.2307	0.5318	0.6122	0.005450
1982	1.2341	2.1579	0.1885	0.5086	0.6091	0.004966
1983	1.2324	1.8683	0.1624	0.4834	0.5873	0.005190
1984	1.2948	1.7300	0.1487	0.4564	0.5527	0.005457
1985	1.3652	1.7702	0.1533	0.4677	0.5615	0.005767
% change 1980-85	16.8	-34.9	-44.7	-27.4	-19.6	11.3

Source: Bank of Canada Review

In 1985, virtually all major industrial sectors, in terms of growth clearly outperformed the average for the 1980s up to that point. Overall, the value of real output increased by 3.5 percent, compared to an average of 1.5 percent for 1980-84. Goods-producing industries showed a real increase of 3.3 percent in 1985, compared to an average of 0.3 percent earlier. Services grew by 3.6 percent following an average growth of 1.1 percent. Industries that manufacture heavy goods, equipment and other durables for consumers and industry showed a real increase of 5.2 percent, compared to 0.4 percent over the 1980-84 period. Construction, in decline since 1981, began to show recovery as investment strengthened.

2.3.1 Detailed Sectoral Information - Manufacturing and Mining

Data to 1984, on 24 major industrial sectors, with comparisons of total manufacturing or mining, is provided in Appendix I in the Section on Marketing. The data provides comparative information on sectoral shipments, employment, regional concentration, domestic and export markets, investment, profitability, productivity performance, major firms, the degree of non-Canadian ownership in the sector, the role of government, industrial relations and research and development activities.

2.4 Capacity Utilization

Capacity utilization is a measure of how much of potential production is actually being employed. Industries do not normally work at 100 percent of their capacity. This would give them no flexibility to meet increases in demand for their products, such as during seasonal peaks. Neither do industries wish to operate too far below their potential, since machinery and employees would be idle. Various technical methods are employed to estimate rates of capacity utilization.

TABLE 4

GROSS DOMESTIC PRODUCT AT FACTOR COST IN CONSTANT (1971) PRICES

(billions of dollars)

		Average Annual Growth Rate % Change							
	80	81	82	83	84	82-84	85*	80-84	84-85
Agriculture	3.0	3.2	3.3	3.1	3.1	-3.1	3.2	0.8	3.2
Forestry, Fishing, Trapping	1.0	0.9	0.9	1.0	1.0	5.4	1.0	-	-
Mines, Quarries, Oil Wells	3.5	3.3	2.9	3.0	3.5	9.8	3.5	-	-
Manufacturing	25.8	26.1	23.1	24.4	26.4	6.9	27.4	0.6	3.8
- Non-Durables	12.5	12.7	11.7	12.4	12.9	5.0	13.2	0.8	2.3
- Durables	13.3	13.4	11.4	12.0	13.5	8.8	14.2	0.4	5.2
Construction	7.0	7.4	6.7	6.4	6.2	-3.8	6.5	-3.0	4.8
Transp., Storage, Communications	16.3	16.9	16.1	16.8	18.0	5.7	18.6	2.5	3.3
Trade	15.0	15.2	14.2	15.4	16.3	7.1	17.2	2.1	5.5
Finance Insurance, Real Estate	15.4	16.0	16.1	16.5	16.9	2.4	17.7	2.4	4.7
Community Business & Personal Service	22.7	23.9	24.1	23.9	24.8	0.4	25.6	2.2	3.2
Public Administration and Defence	8.0	8.1	8.4	8.5	8.7	1.2	8.7	2.1	-
Total Domestic Product of which:	117.8	121.1	115.9	119.0	124.9	3.8	129.3	1.5	3.5
Goods Producing Industries	44.1	44.9	40.2	42.0	44.6	4.4	46.1	0.3	3.3
Service Producing Industries	73.6	76.2	75.0	77.0	80.3	3.5	83.2	2.2	3.6
Commercial Industries	99.6	102.6	97.0	99.7	105.2	4.1	109.5	1.4	4.1
Non-Commercial Industries	18.2	18.5	18.9	19.2	19.6	1.8	19.8	1.9	1.0

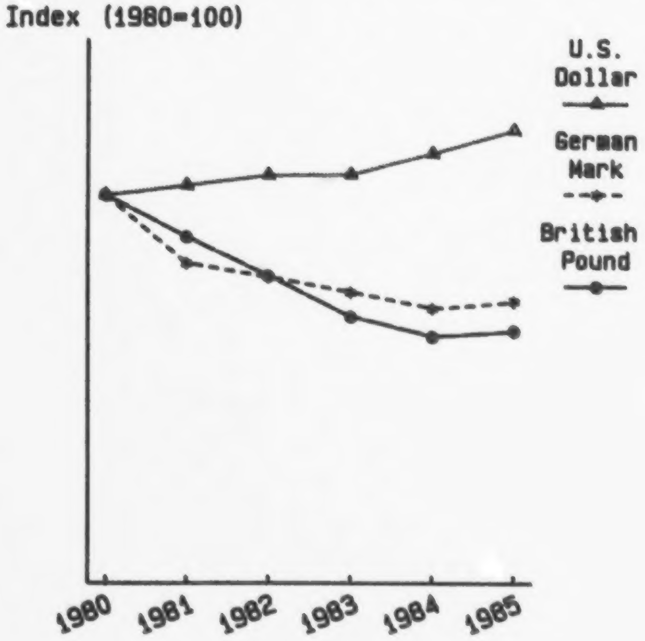
Source: Statistics Canada; Gross Domestic Product by Industry, September 1985.

* Average of three quarters seasonally adjusted, at annual rates.

A significant decline in capacity utilization occurred during the 1982 recession. By the fourth quarter of that year, the rate for manufacturing fell as low as 69 percent of total capacity, down from 84 percent in 1981 and 86 percent in 1980. The average of 72 percent for 1982, improved somewhat in 1983 (76 percent), before moving up to 82 percent in 1984. By 1985, capacity utilization had again reached and exceeded 1981 levels.

Index of Exchange Rates

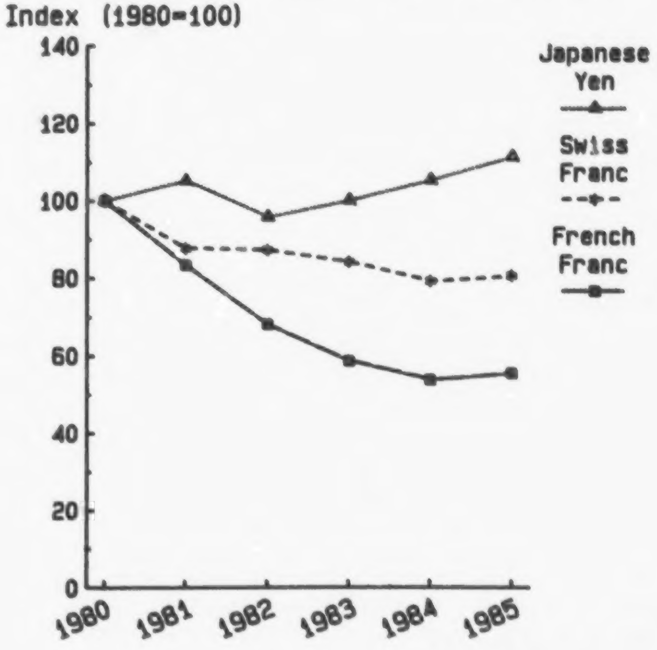
Canadian dollars per unit of:



Source: Bank of Canada Review.

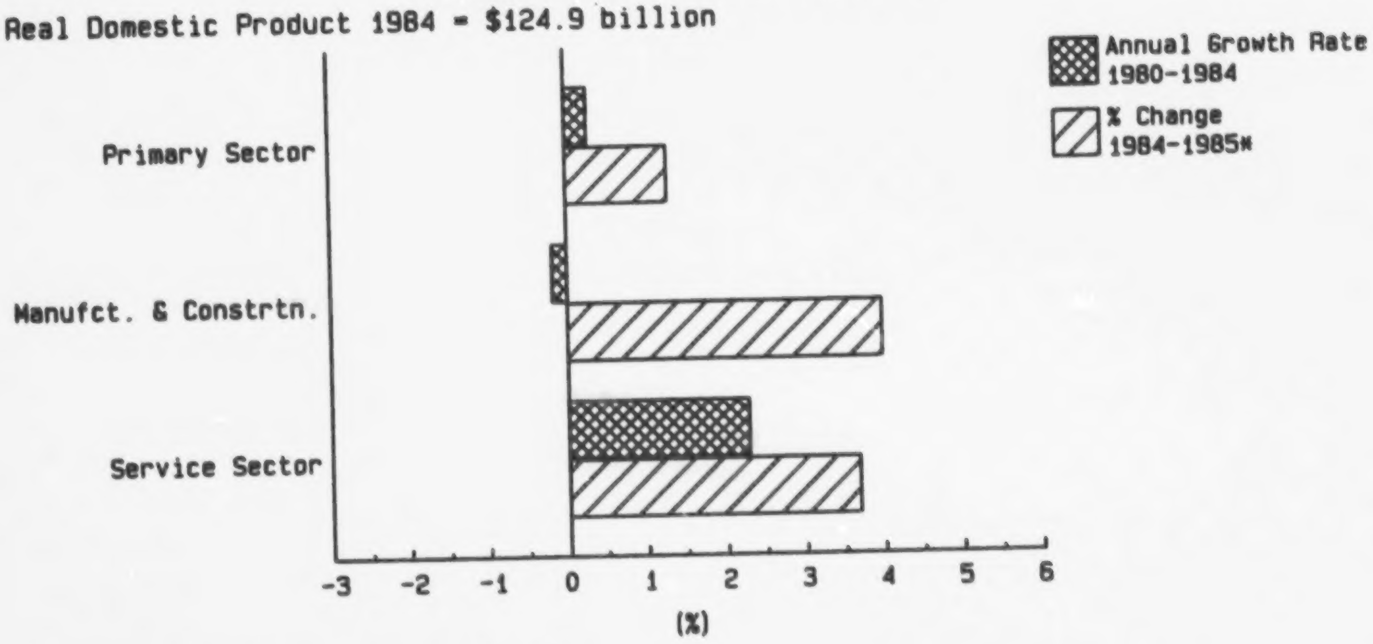
Index of Exchange Rates

Canadian dollars per unit of:



Source: Bank of Canada Review.

Real Domestic Product by Sector
Comparison of Growth
1980–84 and 1984–85



* Average of three quarters adjusted.
Source: Statistics Canada, Gross Domestic
Product by Industry, September 1985.

Producers of durable goods felt the recession more severely than did those producing non-durables. Durable goods are those which are purchased to last over a long period: goods such as automobiles, appliances, televisions and furniture. Non-durables, such as food and beverages, shoes, clothing, etc., are less affected by a recession, as decisions to buy cannot be delayed too long because the goods wear out more quickly and must be replaced. As interest rates declined in 1983 and 1984, consumers began to resume purchases of durables, causing unused production capacity to be taken up.

3. PRICES

In 1976, the Consumer Price Index dropped sharply from the double digit increases of 1974 and 1975. After 1976, the index proceeded to show successively larger increases through to 1981. From a peak of 12.5 percent in 1981, inflation steadily slowed to 4.0 percent in 1985.

The Industry Selling Price Index (ISPI), which measures price change at the production level, showed a very similar pattern - dropping in the mid-1970's, increasing steadily into the 1980's, then falling sharply. The peak increase of 13.4 percent occurred a year prior to that of the CPI, and by 1985, had fallen somewhat further, to 2.7 percent.

Raw material prices, excluding those for fuels, rose significantly between 1977 and 1980, for a total rise of 53 percent. Since then, increases have been fairly small or negative, so that by 1985, the index had increased only 2 percent from its 1980 level.

TABLE 5

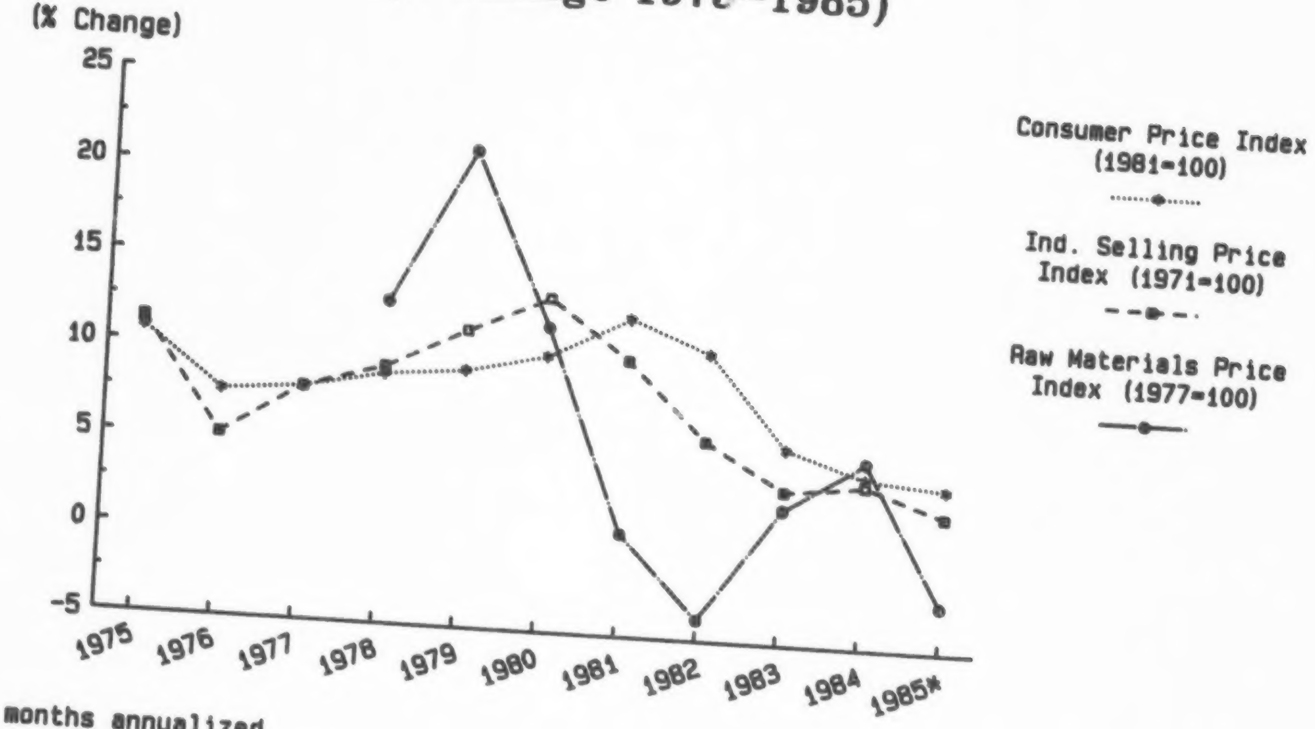
PRICES

Year	Consumer Price Index 1981 = 100	% Change	Industry Selling Price Index 1971 = 100	% Change	Raw Materials Price Index (excluding fuels) 1977 = 100	% Change
1975	58.5	10.8	153.7	11.3	X	-
1976	62.9	7.5	161.5	5.1	X	-
1977	67.9	7.9	174.3	7.9	100.0	-
1978	73.9	8.8	190.4	9.2	112.8	12.8
1979	80.7	9.2	217.9	11.4	136.8	21.3
1980	88.9	10.2	247.2	13.4	153.0	11.8
1981	100.0	12.5	272.3	10.2	154.1	0.7
1982	110.8	10.8	288.8	6.0	148.2	-3.8
1983	117.2	5.8	298.8	3.5	151.9	2.5
1984	122.3	4.4	310.9	4.0	160.0	5.3
1985	127.2	4.0	319.2	2.7	156.3	-2.3

X - not produced

Source: Bank of Canada Review

Various Canadian Price Indexes
(% change 1975–1985)



* 11 months annualized.
Source: Bank of Canada Review.

4. INVESTMENT TRENDS

4.1 Domestic Investment

Excluding government departments, domestic investment in new plant, capital goods and housing had risen to $70.9 billion by 1981. But continued high interest rates and the economic recession of 1982, resulted in a 2-year decline which lowered the level of investment to $65.3 billion in 1983. These trends are shown in Table 6. The beginning of the recovery, as 1983 progressed, and further gains in 1984, halted the decline. By 1985, the level of intended investment had increased to $71.9 billion.

The manufacturing sector was affected significantly. New capital expenditures on plant and machinery declined from $12.4 billion in 1981, to $8.9 billion in 1983, a decrease of 28.2 percent. Renewed demand, in 1984 and 1985, halted the fall and intended investment rose to $11.5 billion.

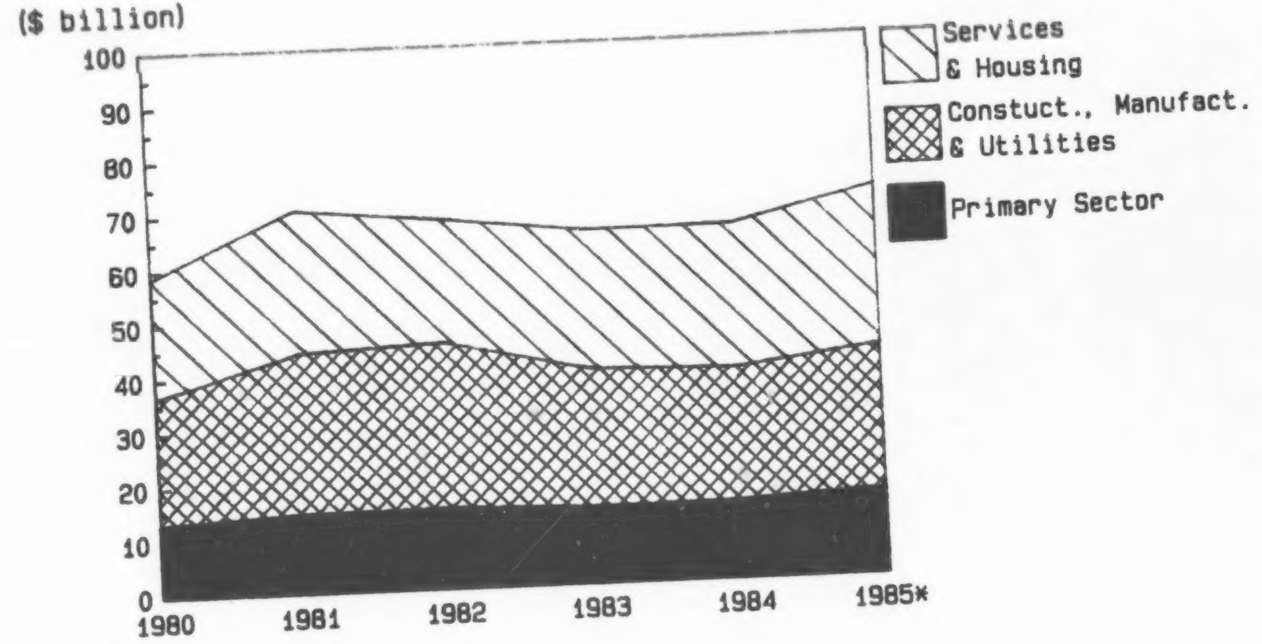
The commercial services sector was also affected by the recession. New capital investment declined from $4.3 billion in 1981 to $3.9 billion in 1983, or 9.3 percent, before rising to $5.0 billion in 1984 and $6.0 billion in 1985.

Investment in the primary sector, comprised of agriculture, fishing, forestry and resources, was relatively unaffected, but continued to be quite flat. Utilities, in response to interest rates and stable demand for power, cut back on new capital investment. As a result, overall new capital investment by mining, secondary (manufacturing and construction) and utility industries, declined by 3.1%, from $39.4 billion in 1981 to $38.2 billion in 1985, at an annual average rate of 0.8%. In the service producing industries new capital investment declined, from 1981 to 1983, by a total of 4.5%, from $13.3 billion to $12.7 billion, but recovered by 1985 to $16.5 billion.

4.2 Investor Attitudes

A survey of Canadian business executives, conducted by the Conference Board of Canada during the third quarter of 1985, indicated greater confidence about investing in new plants and equipment than at any time in the past few years. The results showed that 43 percent saw it as a good time to invest - the highest proportion since the third quarter of 1980. The same sense of optimism emerged in the fact that almost 57 percent - up from 53 percent in the second quarter of 1985 - said their companies would boost capital spending.

Domestic Investment in Canada
New Capital Expenditures by Sector



* Revised intentions at mid-1985.
Source: Statistics Canada, Private and Public
Investment in Canada (61-206)

CEC25503.RL

TABLE 6

DOMESTIC INVESTMENT IN CANADA - NEW CAPITAL EXPENDITURES

	1980	1981	1982	1983	1984	1985*
	($ billion)					
Agriculture, Fishing	4.5	4.7	4.3	4.1	4.2	4.1
Forestry	0.3	0.3	0.1	0.2	0.2	0.2
Mining, Quarrying, Oil Wells	8.2	9.4	10.4	9.6	9.7	11.3
Construction	1.1	1.3	1.3	1.3	1.3	1.3
Manufacturing	9.5	12.4	11.5	8.9	9.1	11.5
Utilities	13.1	16.3	17.9	15.5	14.4	14.1
Trade	1.6	2.0	1.9	2.0	2.4	2.4
Finance, Insurance, Real Estate	3.7	4.6	3.9	3.9	4.0	5.1
Commercial Services	4.0	4.3	4.0	3.9	5.0	6.0
Institutions	2.0	2.4	2.9	2.9	2.8	3.0
Housing	10.9	13.1	10.1	13.0	12.5	12.9
Sub-Total	58.9	70.9	68.5	65.3	65.5	71.9
Government Administration	6.5	7.6	8.3	8.3	9.6	10.1
TOTAL	65.4	78.5	76.8	73.6	75.1	82.1

* Revised Intentions at mid-1985.

Source: Statistics Canada, Private and Public Investment in Canada (61-206).

Results from The Survey of Business Capital Investment Intentions of Large Firms, released by the Department of Regional Industrial Expansion in January 1986, further indicated the Canadian business community as being more optimistic than when the survey had been done, six months previously. Companies responding to the survey expected their capital spending to advance, in 1986, by about 7.5 percent over 1985 levels. Corporate spending, in 1985, registered a 4.6 percent growth over 1984 levels. Most companies projected increased capital investment, higher production and an upturn in sales and profit levels. The factors mentioned most often as affecting outlays were anticipated cash flow, expected domestic and export sales, rates of return, government policies and future economic conditions in Canada.

Capital spending by manufacturing corporations on new plants and equipment in 1986, was projected at about $7 billion; or a 22.2 percent increase from 1985. Transportation equipment, chemicals and primary metals companies showed particularly strong spending plans for 1986. Forest products and other manufacturing companies also projected increases for 1986.

Spending plans in non-manufacturing sectors for 1986 were estimated at about $20 billion; an increase of 3.2 percent from 1985. Areas of strength include trade, finance and other commercial, oil and gas pipelines and communications. Planned outlays by oil and gas companies and transportation and storage companies also record increases for 1986. Electric utilities and mining companies record declines.

The spending of domestic majority-owned firms on new plant and equipment, in 1986, was projected to increase by 7.0 percent in real terms, compared with an 8.6 percent increase by foreign firms.

4.3 Foreign Investment in Canada

Canada, with its relatively small population and huge natural resource endowment, has always required foreign capital to supplement its own means to finance the growth of its economy. In addition, direct investment may bring with it managerial expertise and technology, which may not always be available in sufficient quantity or quality from Canada's own resources. Except for a brief period (1974-1985) when Canada used a screening mechanism under the Foreign Investment Review Act, to review a small proportion (less than 10 percent) of foreign direct investment, Canada has had an open policy towards foreign investment. With the enactment of the Investment Canada Act, the thrust of the government is to promote, encourage and facilitate new investment, both Canadian and non-Canadian.

4.3.1 Direct and Portfolio Investment

Foreign Direct Investment (FDI) is investment made to expand or acquire some type of permanent interest in an enterprise. FDI implies control, which is exercised by appointing directors and managers of the direct investment enterprise. Often the foreign investor also brings managerial skill, technology, access to sources of capital, and knowledge of foreign markets to the enterprise in which it invests.

Portfolio investment, on the other hand, is purely financial investment. The investor plays no major role in the direction and management of the enterprise, but rather is influenced by such considerations as marketability, income yield, prospects of capital appreciation, tax advantages, exchange rate fluctuations, and safety of principal. Table 7 indicates that both direct and portfolio types of foreign investment have steadily increased in Canada.

TABLE 7

FOREIGN LONG-TERM INVESTMENT IN CANADA, YEAR-ENDS, 1975-1984

	Direct1)	Portfolio2) (billions of dollars)	Miscellaneous3)	Total long-term
1975	37.4	28.2	3.7	69.3
1976	40.3	37.7	4.1	82.1
1977	43.7	43.5	4.4	91.6
1978	48.3	50.1	4.6	103.0
1979	54.3	56.5	4.7	115.5
1980	61.6	62.1	5.2	129.0
1981	66.5	82.4	5.7	154.6
1982	69.2	97.3	5.4	171.9
1983	74.6	104.2	5.9	184.7
1984	83.1	115.4	6.2	204.7

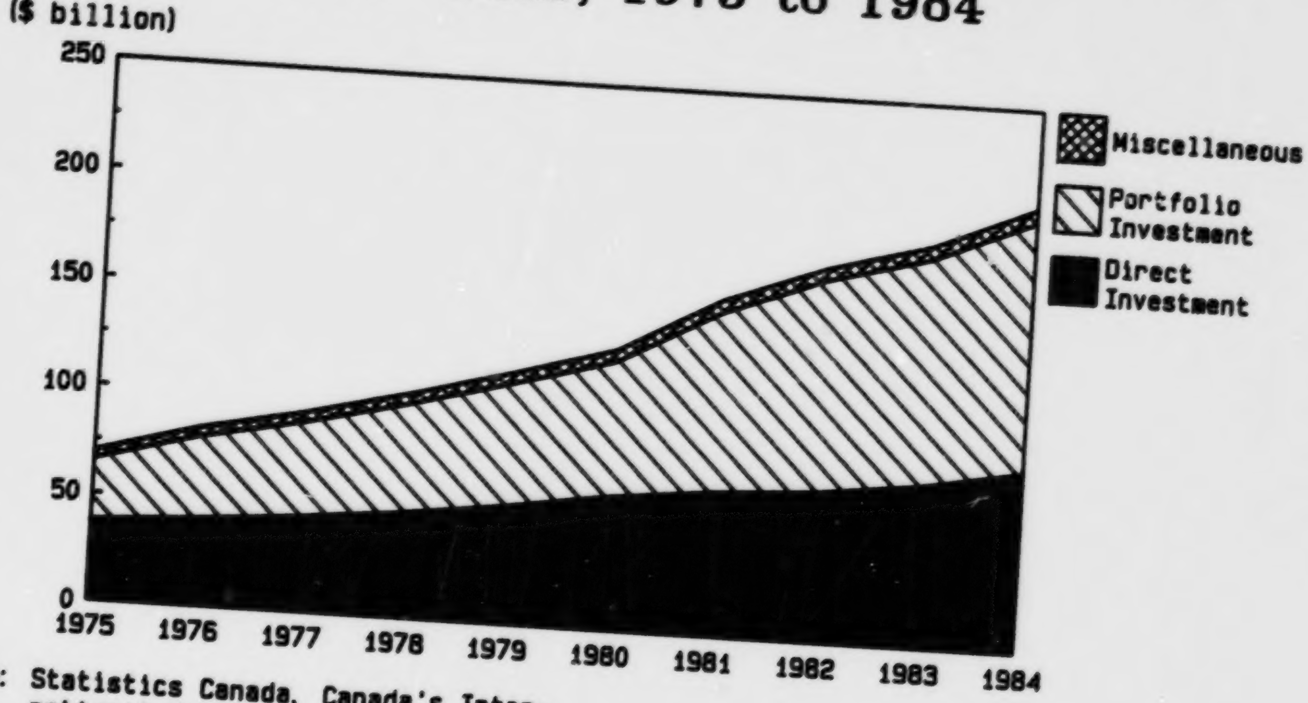
NOTES: (1) Foreign direct investment represents the book value, at a point in time, of long-term capital owned by foreign direct investors in incorporated and unincorporated entities in Canada. Through direct investment, an investor gains the potential to influence or to have an effective voice in the management of the enterprise operating outside the investor's own economy. This investment is normally identified by ownership of at least 10 percent of the equity of the enterprise in Canada. Direct investment covers the long-term capital provided by, or accruing to, foreign direct investors, comprising both long-term debts (bonds, debentures, loans, advances, etc.) and equity (common and preferred shares, and retained earnings).

(2) Portfolio investment is a passive type of investment where the foreign investors are primarily concerned about the safety of their capital, the likelihood of an appreciation in its value, and the return that it is bringing them.

(3) Miscellaneous investment refers to Canadian securities, mortgages, real estate, and other assets held or administered by trustees, agents, etc. Those assets which cannot be precisely ascribed into one of the two other categories are included in this category.

Source: Statistics Canada, Canada's International Investment Position (1979 and 1980)
Data for 1981 - 1984 provided by Statistics Canada.

Foreign Long–Term Investment in Canada
Year–Ends, 1975 to 1984



Source: Statistics Canada, Canada's International Position (1979 and 1980)
Data for 1981-1984 by Statistics Canada.

Foreign-controlled Investment. The book value of foreign direct investment in Canada, at the end of 1984, was $83.1 billion (see Table 7). Table 8 also shows a geographic distribution, by the country of origin, of foreign direct investment in Canada. The largest source of foreign direct investment in Canada, is the U.S., followed by the U.K., West Germany, the Netherlands and Japan.

4.3.2 Performance of Foreign-Controlled Firms

Table 9 provides an overview of the financial characteristics of the foreign-controlled sector. Corporations classified as U.S.-controlled hold a dominant position - approximately 75 percent of the foreign-controlled sector's contribution. Specifically, U.S.-controlled corporations accounted for some 72 percent of the assets, 77 percent of the equity, 75 percent of the sales and 85 percent of the profits of foreign-controlled, non-finanacial corporations in Canada, during 1982. Corporations classified as British-controlled represented approximately a 10 percent share (that is, 10 percent of assets, 9 percent of equity, 10 percent of sales and 7 percent of profits) of the foreign-controlled, non-financial industries.

Table 9 also presents various performance characteristics (sales/assets, profits/sales, profits/assets, and profits/equity ratios) of Canadian and non-Canadian controlled corporations in the non-financial industries. These performance ratios indicate that the overall performance of foreign-controlled firms has been consistently better than that of Canadian-controlled businesses. (There are a number of factors that contribute to this. These factors include easier access for the foreign enterprise to its parent's technology, managerial skills, capital resources, patents and trademarks, etc.)

4.3.3 Foreign Direct Investment in Various Industries

Foreign-controlled companies constitute a significant part (more than 20 percent of assets) of mining, manufacturing, wholesale trade and services industry sectors in Canada, as outlined in Table 10. In 1982, non-financial companies in Canada had assets of some $575 billion, of which some $142 billion (25 percent) were controlled by non-Canadians. Foreign participation was higher in mining and manufacturing industries in which, in 1982, non-Canadians controlled 34 percent and 45 percent of assets respectively.

TABLE 8

FOREIGN DIRECT INVESTMENT IN CANADA, YEAR END 1984

Source	Foreign Direct Investment (millions of dollars)
North America (including Caribbean)	
United States	64,210
Bahamas	187
Bermuda	876
Mexico	2
Netherlands Antilles	99
Other	27
Sub-total	65,401
South and Central America	
Panama	119
Venezuela	3
Other	3
Sub-total	125
Europe	
United Kingdom	7,345
Belgium and Luxembourg	357
France	1,250
Italy	135
Netherlands	1,837
West Germany	2,359
Denmark	34
Ireland	22
Greece	10
Norway	29
Sweden	375
Switzerland	1,131
Austria	22
Other	280
Sub-total, Europe	15,186
Africa	175
Asia	
Japan	1,690
Hong Kong	183
Other	238
Sub-total	1,834
Australasia	
Australia	104
Other	6
Sub-total	110
TOTAL	83,128
Developed Countries, Total	81,128
Developing Countries, Total	1,790
Centrally Planned Economies, Total	57

Source: Statistics Canada, Canada's International Investment Position, 1985.

TABLE 9

COUNTRY OF CONTROL OF NON-FINANCIAL CORPORATIONS MAJOR CHARACTERISTICS, 1982

	U.S.	U.K.	Other Foreign	Total Foreign	Canada	Total Classified	Unclass-ified	Total
Number of Corp.	3,849	661	1,225	5,735	130,801	136,536	252,850	389,386
($billions of dollars)								
Assets	102.0	14.5	25.1	141.6	417.1	558.7	15.8	575.3
Equity	48.8	6.0	8.4	63.2	129.5	192.7	2.8	195.5
Sales	138.4	17.6	28.3	184.4	413.8	598.2	32.0	630.2
Profits	8.7	0.7	0.8	10.2	12.3	22.5	0.6	23.1
(Ratios)								
Sales/assets	1.35	1.21	1.13	1.30	0.99	1.07	2.03	1.09
Profits/sales	0.06	0.04	0.03	0.05	0.02	0.04	0.02	0.03
Profits/assets	0.08	0.05	0.03	0.07	0.02	0.04	0.04	0.04
Profits/equity	0.17	0.12	0.10	0.16	0.09	0.12	0.21	0.11

Source: Statistics Canada, CALURA Report for 1982

4.3.4 Capital Movements Related to Foreign Direct Investment (FDI) in Canada

The total stock of FDI from year to year is primarily influenced by net cross-border capital flows and by undistributed earnings of direct investment enterprises. Tables 11 and 12 show the capital flows related to FDI in Canada, for all countries and the U.S., respectively. Both tables provide a breakdown of the gross capital flows into their two components; gross inflows and outflows.

Gross inflows are divided into (i) inflows resulting from the sale of existing businesses in Canada to non-residents, and (ii) other inflows between foreign direct investors and their direct investment enterprises, such as loans and additional equity.

Similarly, gross outflows are divided into (i) outflows resulting from acquisitions by Canadians of direct investment interests from non-residents, and (ii) other outflows to foreign direct investors from their direct investment enterprises; for example, repayment of loans to parent companies.

Foreign direct investment in Canada produced a record net capital inflow of $2.15 billion in 1984, (despite a slight drop in the gross inflow) compared to a net inflow of only $200 million in the previous year. (The previous largest net inflow since 1975 was $800 million in 1980.)

TABLE 10

ASSETS OF CANADIAN-CONTROLLED AND FOREIGN-CONTROLLED BUSINESS BY MAJOR INDUSTRY SECTOR, 1982

	Foreign-controlled					Grand
Industry Sector	U.S.	Other	Total	Canadian	Unclassified	Total
			(billions of dollars)			
Agriculture forestry, fishing	0.2	0.3	0.5	9.1	1.0	10.6
Mining	26.1	7.9	34.0	65.5	0.2	99.7
Manufacturing	54.1	22.9	77.0	92.1	1.1	170.2
Construction	1.4	1.1	2.5	18.1	2.6	23.2
Utilities	4.8	0.9	5.7	135.0	1.1	141.8
Wholesale Trade	6.0	5.4	11.4	40.3	1.7	53.4
Retail Trade	4.1	0.6	4.7	27.8	3.7	36.2
Services	5.4	0.8	6.2	29.1	4.9	40.2
Total of Non-financial Industries	102.1	39.9	142.0	417.0	16.3	575.3

Source: Statistics Canada, CALURA Report for 1982.

NOTE: The Corporations and Labour Unions Returns Act (CALURA) applies only to corporations with gross revenues during a reporting period in excess of $500,000 or assets in excess of $250,000. Crown corporations and corporations operating under such Government of Canada statutes as the Canadian and British Insurance Companies Act, the Bank Act, the Loan Companies Act, the Small Loans Act, the Radio Act and the Railway Act are exempt.

The low level of net investment in 1983 reflected a continuation of repatriation takeover activities by Canadians of foreign direct investment interests in Canada (see Table 13). In 1984, however, the value of gross outflow of capital due to repatriation to Canadians was at its lowest level since 1977, amounting to some $463 million, compared to $1.7 billion in 1983. In 1981, primarily as a result of the National Energy Program, some $7.6 billion left the country, in large part reflecting the purchase by Canadians of foreign-controlled energy firms resident in Canada.

Excluding the above acquisitions by residents, a net inflow of $2.5 billion was recorded on other direct investment transactions, largely for working capital and capital formation purposes. While gross capital inflows related to these investments of $3.6 billion remained virtually unchanged from 1983, there was a decline of some $600 million, to $1.2 billion, in gross outflows to foreign direct investors. The latter represents loan repayments and reductions in foreign equity investments by foreign direct investors.

On a net basis, increases in direct investment flows were recorded in all major industries, most notably in the financial and manufacturing sectors. Geographically, investments from the U.S. predominated, representing 60 percent of the total net inflow.

TABLE 11

CAPITAL MOVEMENTS BETWEEN CANADA AND ALL OTHER COUNTRIES RELATED TO FDI IN CANADA

Year	Gross inflows	Gross outflows ($ million)	Net capital flows for direct investment
1975	1,776	1,051	+725
1976	1,723	2,023	-300
1977	1,873	1,398	+475
1978	2,787	2,652	+135
1979	2,909	2,159	+750
1980	4,227	3,427	+800
1981	4,801	9,201	-4,400
1982	4,090	5,090	-1,000
1983	3,749	3,549	+200
1984	3,830	1,680	+2,150

TABLE 12

CAPITAL MOVEMENTS BETWEEN CANADA AND U.S.(1) RELATED TO FDI IN CANADA

Year	Gross inflows (2)	Gross outflows (3) ($ million)	Net capital flows for direct investment
1975	1,364	776	+588
1976	1,119	1,678	-559
1977	1,395	978	+417
1978	2,015	2,309	-294
1979	1,986	1,628	+358
1980	2,979	2,701	+278
1981	3,183	6,877	-3,694
1982	2,463	4,485	-2,022
1983	1,981	2,727	-747
1984	2,499	1,220	+1,279

NOTES:

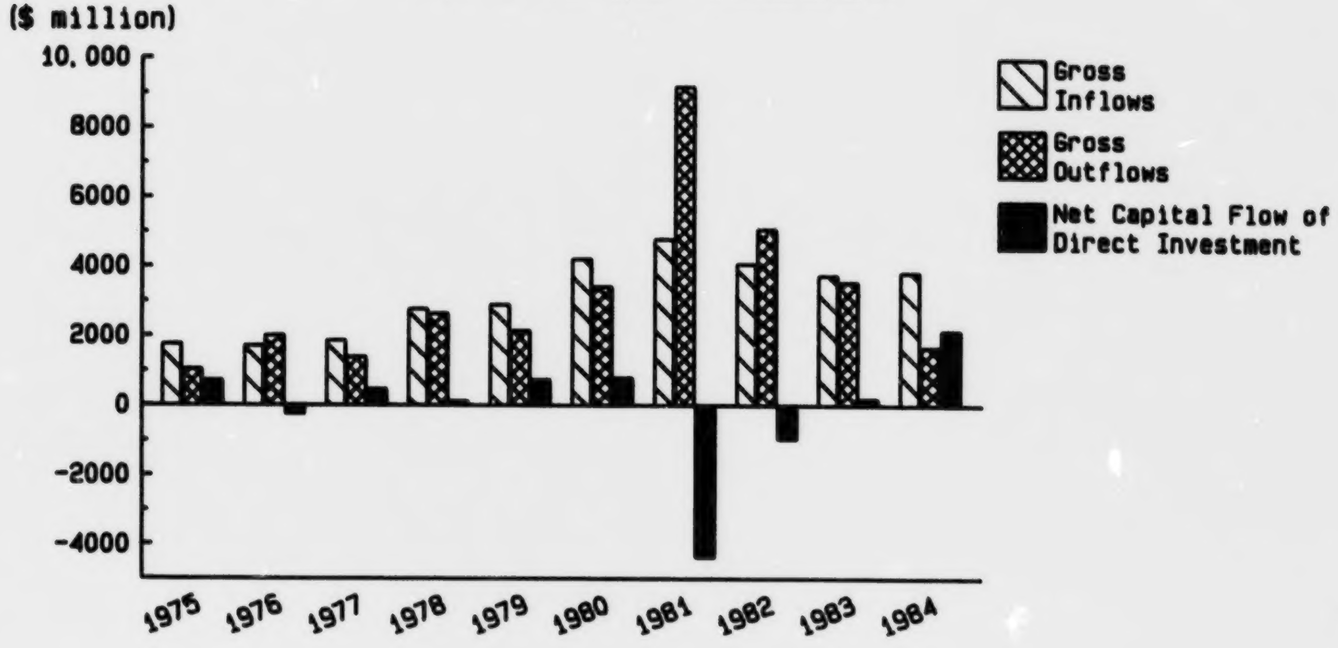
(1) Cross-border capital flows. Does not include investment in Canada of retained earnings by foreign-controlled firms.

(2) Inflow of foreign investment to Canada to expand or acquire an investment in a direct investment enterprise.

(3) Outflow of foreign capital from Canada, as a result of the sale of equity in a direct investment enterprise or the repayment of a loan by a direct investment enterprise.

Source: Statistics Canada, Quarterly Estimates of the Canadian Balance of International Payments
Statistics Canada, Canada's International Investment Position.

Capital Movements Between Canada And All Other Countries Related To FDI In Canada



Source: Statistics Canada.

TABLE 13

ANALYSIS OF CAPITAL MOVEMENTS BETWEEN CANADA AND ALL OTHER COUNTRIES, RELATED TO FDI IN CANADA

		1980	1981	1982	1983	1984
Gross inflows of capital from foreign direct investors						
(i)	to acquire existing businesses	+4	+66	+151	+336	+195
(ii)	to their direct investment enterprises	+4,223	+4,735	+3,939	+3,413	+3,635
(iii)	Total Gross Inflows	+4,227	+4,801	4,090	+3,749	+3,830
Gross outflows of capital to foreign direct investors						
(i)	from sale of direct investment interests to Canadians	-1,731	-7,588	-3,497	-1,709	-463
(ii)	from their direct investment enterprises	-1,696	-1,613	-1,593	-1,840	-1,217
(iii)	Total Gross Outflows	-3,427	-9,201	-5,090	-3,549	-1,680
	NET FLOW	+800	-4,400	-1,000	+200	+2,150

Source: Statistics Canada, Quarterly Estimates of Canadian Balance of International Payments

5. PROVINCIAL AND TERRITORIAL ECONOMIC PERFORMANCE

5.1 Newfoundland

Signs of improvement appeared in various economic indicators for 1985. The employment level held steady during the year, though labour force numbers increased more quickly.

Wages and salaries and average weekly earnings continued to advance in 1985 following somewhat stronger gains of the previous year. Despite rising fish prices, the value of fish landings were affected by decreased volumes, variously reflecting the trawlermen's strike and the colder water temperature for the inshore fishery which reduced the key cod catch in particular. An import duty was also imposed by the U.S. on Canadian salt fish, though volumes affected were relatively small.

Mineral production values, however, experienced a gain over 1984. Manufacturing shipments increased by approximately 8 percent, compared to little more than one percent in 1984. The federal and provincial governments signed the Atlantic Accord in February 1985 regarding management and revenue sharing of the province's offshore oil and gas. The Accord establishes a $300 million federal-provincial fund to assist the province in the development of an offshore-related infrastructure.

Capital investment intentions remained above 1984 estimates by about 10 percent, with emphasis on the goods producing sector. Building permits, as a whole, experienced some decline in 1985, but the number of housing starts gained modestly, following a decrease of 17 percent the previous year. Private sector construction was spurred by three large projects in St. John's.

Retail sales increased by close to 8 percent compared to a figure of 5 percent in 1984, clearly outpacing gains in the St. John's consumer price index. As in much of the rest of Canada, the rate of increase in the index slowed during 1985.

NEWFOUNDLAND

Premier: Brian Peckford (Progressive Conservative)
Capital: St. John's
Area: 405,720 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	579	580
Labour Force	(thousands)	221	224
Employed	(thousands)	176	176
Unemployed	(thousands)	45	48
Wages and Salaries	($ billions)	2.9	3.0 *
Average Weekly Earnings, Industry (dollars)		441	451 *
Farm Cash Receipts	($ billions)	.04	.04
Mineral Production	($ billions)	0.9	1.0
Manufacturing Shipments	($ billions)	1.2	1.3 *
Retail Sales	($ billions)	2.1	2.2 **
New Capital Investment	($ millions)	1644	1807
Value of Building Permits	($ millions)	154	138 *
Housing Starts	(thousands)	2.7	2.8 ***
Consumer Price Index (St. John's)	(1981 = 100)	122.7	127.8

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm receipts; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.2 Prince Edward Island

Indications of continued expansion marked the performance of the Island's economy during 1985. The year saw strong increases in the fishery industry, as volumes increased by over 5 percent and value was higher by a third. Estimates of cash receipts from farming operations fell by approximately 6 percent. The change centered largely on crops, reflecting the large surplus in the North American potato market that resulted in lower potato prices, after a record crop in 1984.

Wage and salaries grew by nearly 5 percent - essentially the same increase that occurred in 1984 - while the average weekly wage rose nearly as rapidly. Manufacturing shipments grew by 5 percent, after a marginal drop the previous year. Tourism was up by about 4 percent and retail sales indicated a rise of about 6 percent following an increase of over 10 percent in 1984. Inflation continued to slow, with the Charlottetown/Summerside consumer price index ahead by 3.7 percent, compared to a 4.3 percent increase the previous year.

A positive note was struck with investment intentions, revised upwards for 1985 to over 9 percent above 1984 levels and identical to the national percentage gain. Somewhat stronger increases over 1984 were indicated for building permits and for housing starts in the province.

In terms of the labour market, the provincial economy in 1985 generated an increase of nearly 5 percent in jobs, compared to about one percent the year before. A faster rise in the labour force, however, was reflected in the rate of unemployment for 1985.

PRINCE EDWARD ISLAND

Premier: Joe Ghiz (Liberal)
Capital: Charlottetown
Area: 5,660 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	126	127
Labour Force	(thousands)	56	59
Employed	(thousands)	49	51
Unemployed	(thousands)	7	8
Wages and Salaries	($ billions)	0.6	0.6 *
Average Weekly Earnings, Industry	(dollars)	395	414 *
Farm Cash Receipts	($ billions)	.19	.18
Mineral Production	($ billions)	..	..
Manufacturing Shipments	($ billions)	0.3	0.3 *
Retail Sales	($ billions)	0.5	0.6 **
New Capital Investment	($ millions)	216	236
Value of Building Permits	($ millions)	78	87 *
Housing Starts	(thousands)	0.6	0.7 ***
Consumer Price Index (Charlottetown and Summerside)	(1981 = 100)	120.0	124.5

.. under $0.05 billions

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.3 Nova Scotia

Forward momentum in the economy of Nova Scotia continued in 1985, building on earlier recovery. Ongoing gains were augmented by a positive investment picture, though employment remained at the same level as in the past year and a small increase occurred in the labour force.

In the primary sector, increases were registered in fish landings, while overall mineral production appeared to remain relatively flat. Farm cash receipts fell by nearly 10 percent based on year end estimates by the federal Department of Agriculture. At the same time, imposition of duties affected such export activities as fish and hogs destined for the U.S. market. Manufacturing shipments, which had gained by nearly a fifth during 1984, saw a modest increase in the past year.

Both wages and salaries and average weekly salaries outpaced national increases in 1984 and 1985, and were reflected in somewhat stronger retail sales growth than indicated nationally. Retail sales gained by nearly the same 15 percent registered the year before. Business in the Halifax region was assisted by strong hotel bookings during 1985. The increase in the Halifax consumer price index repeated its 1984 gain of 4.4 percent.

New capital spending intentions for 1985 were revised upwards, over initial estimates for the year, and posted an increase of 15 percent over 1984 levels. The value of building permits rose by 10 percent. Housing starts, following a drop of almost 10 percent in 1984, experienced gains of half or better as 1985 progressed.

NOVA SCOTIA

Premier:	John Buchanan (Progressive Conservative)
Capital:	Halifax
Area:	55,490 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	872	881
Labour Force	(thousands)	387	391
Employed	(thousands)	337	337
Unemployed	(thousands)	51	54
Wages and Salaries	($ billions)	5.6	6.0 *
Average Weekly Earnings, Industry	(dollars)	433	455 *
Farm Cash Receipts	($ billions)	.26	.26
Mineral Production	($ billions)	0.3	0.3
Manufacturing Shipments	($ billions)	4.7	4.1 *
Retail Sales	($ billions)	4.0	4.5 **
New Capital Investment	($ millions)	2661	3028
Value of Building Permits	($ millions)	562	675 *
Housing Starts	(thousands)	4.6	7.0 ***
Consumer Price Index (Halifax)	(1981 = 100)	121.9	127.3

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.4 New Brunswick

New Brunswick experienced continued growth in 1985. The investment picture was positive and employment grew by 4 percent (compared to 0.4 percent in 1984). At the same time, the labour force grew at a somewhat faster pace of 4.5 percent.

Primary sector performance was mixed. The year began with increased fish catches, in spite of adverse ice conditions and market competition. Farm cash receipts in part reflected lower prices for potatoes. Like those in P.E.I., New Brunswick growers were following on from a record potato crop year in 1984. The overall decline in receipts from farming operations proved to be relatively modest. Pulpwood production experienced some weakness, as did mineral production, facing soft international prices for mining output, notably base metals and potash.

Manufacturing output increased very substantially in 1984 with a gain of nearly 22 percent. A rise closer to a tenth of that percentage marked performance in 1985. Expansion and improvement of pulp and paper mills was largely completed, while weakness in foreign markets continued to face the industry. Shipbuilding prospects were boosted in August of 1985 with the initiation of the Canadian Frigate Program at Saint John.

Incomes from wages and salaries continued to move ahead at rates fairly comparable to those posted in the previous year. The value of retail sales grew by nearly the same 7.7 percent rise of the year before, exceeding in both 1984 and 1985, the rate of consumer price increase at Saint John. That index rose by 4.2 percent, compared to 5.15 percent the year before.

Planned capital expenditures for 1985 as estimated by Statistics Canada, stand nearly 17 percent higher than figures for 1984. Building permits showed considerably more strength, while housing starts climbed strongly. The number of housing starts, which had fallen by nearly two-fifths in 1984, saw a recovery of the same order in 1985.

NEW BRUNSWICK

Premier:	Richard Hatfield (Progressive Conservative)
Capital:	Fredericton
Area:	73,440 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	714	719
Labour Force	(thousands)	291	305
Employed	(thousands)	248	258
Unemployed	(thousands)	44	46
Wages and Salaries	($ billions)	4.2	4.5 *
Average Weekly Earnings, Industry	(dollars$)	443	459 *
Farm Cash Receipts	($ billions)	.23	.22
Mineral Production	($ billions)	0.6	0.6
Manufacturing Shipments	($ billions)	4.2	4.3 *
Retail Sales	($ billions)	2.9	3.1 **
New Capital Investment	($ millions)	1546	1803
Value of Building Permits	($ millions)	293	397 *
Housing Starts	(thousands)	2.8	4.1 ***
Consumer Price Index (Saint-John)	(1981 = 100)	122.8	128.0

* estimates based on 10 months information

** estimates based on 11 months information

*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.5 Quebec

After strong growth in 1984, based on the performance of the consumer durable goods and investment sectors, economic activity in Quebec showed further advances in 1985. Average employment in 1984 had returned to the pre-recession high recorded in 1981. Job growth in 1985 again outpaced labour force expansion and continued to reduce the rate of unemployment.

In the primary sector, cash receipts from farming operations underwent a slight decline from 1984, according to estimates of the federal Department of Agriculture. Pulpwood and mineral production also reflected weakness in international market and price conditions. Manufacturing shipments which had increased by nearly 10 percent in 1984, increased again in 1985 at a rate of about 5 percent. A range of food, forest, aircraft and electrical/electronics products experienced recovery from recessionary conditions, though primary metals, petrochemicals and refining encountered weak market conditions. Much restructuring has taken place in textiles, clothing and footwear.

Wage and salary gains approximated the 7 percent increase of 1984, while average weekly earnings maintained gains of about 4 percent in each of the two previous years. Reflecting these gains in part, retail sales showed continued increases of about 9 percent following a strong rise of 12.5 percent in 1984. Retail increases exceeded those in the consumer price index, which showed a slightly faster rise during 1985, compared to 1984.

Investment remained an important source of strength in the Quebec economy. Capital spending intentions were revised upwards for 1985, to some 9 percent above 1984 levels. Major increases over 1984 were indicated by manufacturers. Gains of over 10 percent in trade and commercial services, by institutions and government, were accompanied by an 8 percent increase in primary industries and construction combined. Total capital outlays had already advanced by about 12 percent in 1984. Continued gains were also registered in the value of building permits, higher by 18 percent in 1984, with a similar rise in 1985. Housing starts continued apace, with some acceleration in 1985.

QUEBEC

Premier: Robert Bourassa (Liberal)
Capital: Quebec City
Area: 1,540,680 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	6542	6581
Labour Force	(thousands)	3123	3181
Employed	(thousands)	2772	2804
Unemployed	(thousands)	400	375
Wages and Salaries	($ billions)	48.9	51.8 *
Average Weekly Earnings, Industry	(dollars)	456	474 *
Farm Cash Receipts	($ billions)	3.1	3.0
Mineral Production	($ billions)	2.2	2.2
Manufacturing Shipments	($ billions)	57.6	50.4 *
Retail Sales	($ billions)	29.0	31.5 **
New Capital Investment	($ millions)	15563	16919
Value of Building Permits	($ millions)	3611	4272 *
Housing Starts	(thousands)	41.9	44.7 ***
Consumer Price Index	(1981 = 100)		
(Montreal)		122.7	128.1
(Quebec City)		122.7	128.2

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.6 Ontario

The economy of Canada's largest province continued to grow at a healthy pace in most sectors during 1985. Wages and salaries increased by over 7 percent, quite comparable to the rate of 1984. Average weekly earnings continued to record a more moderate growth, with an increase of 4.6 percent.

In the primary sector, receipts from farming operations declined by 4 percent, partly as the result of poor livestock and hog prices. The mining industry experienced modest growth in 1985, showing an increase of 1.2 percent in the value of mineral production, much of which was attributed to gold mining activity.

Ontario manufacturing shipments carried on from an upswing of 16.5 percent in 1984, to show a further rise of 8.6 percent in 1985. Once again it was the continued performance of the transportation equipment, and the electrical and electronic equipment sectors that led the way. New capital investment grew by 34 percent. Housing starts increased by a quarter. Reflecting a generally buoyant economy, the value of retail sales increased by 7 percent, following growth of 10.2 percent in 1984. The growth in retail sales at better than 10 percent clearly outpaced increases in the consumer price index, which slowed by nearly one percentage point, compared to the previous year.

As the result of continuing economic growth, employment grew by 3.8 percent, or an increase of nearly 160,000 jobs. The rise of 3.8 percent outpaced a gain of 1.6 percent in the labour force, resulting in a decrease of more than one percentage point in the unemployment rate to 8.0 percent, compared to 9.1 percent in 1984. The number of unemployed declined by nearly 25 percent.

ONTARIO

Premier: David Peterson (Liberal)
Capital: Toronto
Area: 1,068,580 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	8947	9066
Labour Force	(thousands)	4666	4787
Employed	(thousands)	4243	4402
Unemployed	(thousands)	424	383
Wages and Salaries	($ billions)	86.9	93.2 *
Average Weekly Earnings, Industry	(dollars)	480	502 *
Farm Cash Receipts	($ billions)	5.3	5.1
Mineral Production	($ billions)	4.5	4.6
Manufacturing Shipments	($ billions)	118.5	128.7 *
Retail Sales	($ billions)	43.5	48.3 **
New Capital Investment	($ millions)	24826	27886
Value of Building Permits	($ millions)	6274	8410 *
Housing Starts	(thousands)	48.2	60.6 ***
Consumer Price Index	(1981 = 100)		
(Ottawa)		123.2	128.3
(Toronto)		123.7	128.5

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.7 Manitoba

Increased activity in Manitoba was evident on a number of fronts, though not fully shared in segments of the primary sector during the year. Agricultural performance was restrained by world surpluses of grain, while slow commodity prices for copper, nickel and zinc held the 1985 value of mineral production at its 1984 level.

The manufacturing sector of Manitoba is heavily concentrated in the food processing, machinery and clothing industries which together account for some 43 percent of all manufacturing shipments. Manufacturers' shipments experienced solid growth of 5.7 percent in 1985. This was led by such industries as chemicals and printing. Conditions in agriculture resulted in losses among machinery and metal fabricators during the year.

Wages and salaries in 1985 grew by 3.7 percent, but retail sales continued strong growth of about 13 percent following a 10.1 percent growth in 1984. These gains strongly exceeded increases in consumer prices of 3.6 percent in 1984 and 4.2 percent in 1985. Employment grew by 1.8 percent while labour grew by only 1.6 percent, reducing the rate of unemployment to approximately 8.0 percent, one of the lowest in Canada.

New capital investment recorded strong growth of 18 percent. The value of building permits increased more noticeably by 32.0 percent, after recording a growth of 22 percent in 1984. Similarly, housing starts increased by 21.3 percent in 1985 (-11.3 percent in 1984). Construction activity into 1986 and beyond will reflect the continuing impetus of the new $2.2 billion Limestone Hydro Power project.

MANITOBA

Premier:	Howard Pawley (New Democratic Party)
Capital:	Winnipeg
Area:	649,950 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	1058	1070
Labour Force	(thousands)	515	523
Employed	(thousands)	472	480
Unemployed	(thousands)	43	42
Wages and Salaries	($ billions)	8.2	8.5 *
Average Weekly Earnings, Industry	(dollars)	454	470 *
Farm Cash Receipts	($ billions)	1.9	1.9
Mineral Production	($ billions)	0.8	0.8
Manufacturing Shipments	($ billions)	5.2	5.5 *
Retail Sales	($ billions)	4.5	5.1 **
New Capital Investment	($ millions)	2432	2871
Value of Building Permits	($ millions)	528	697 *
Housing Starts	(thousands)	5.2	6.3 ***
Consumer Price Index (Winnipeg)	(1981 = 100)	120.3	125.3

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.8 Saskatchewan

Saskatchewan continued to display strong growth in 1985, with the pace of activity stronger outside the primary sector. Here, conditions were affected by areas of drought, and externally, by grain surpluses and low mineral prices on international markets. Overall cash receipts from farming operations declined, though yields did increase over 1984 levels.

Oil production and wells drilled in 1985, set new records for the third year in succession. Further activity will reflect the extent and persistence of trends in global oil pricing. Production in the province's potash and uranium industries reflected a weakness in world prices and a climb in inventories. Gold mining experienced a strengthening in the north.

The construction industry strengthened, largely a result of activity in the mining, health and utility sectors. The value of building permits continued to swing upwards from 1984 levels. The number of housing starts showed a noticeable improvement after a sharp decline in performance of a year earlier.

The unemployment rate remained unchanged at 8 percent, the result of labour force expansion which advanced at the same pace as job creation. Wages and salaries continued to rise, though at a pace below 1984. Retail sales increased by over 7 percent, after a slight decline the previous year. A declining inflation rate, below the national average, contributed to increased retail spending in real terms.

SASKATCHEWAN

Premier:	Grant Devine (Progressive Conservative)
Capital:	Regina
Area:	652,330 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	1009	1020
Labour Force	(thousands)	477	491
Employed	(thousands)	438	452
Unemployed	(thousands)	38	39
Wages and Salaries	($ billions)	6.8	7.0 *
Average Weekly Earnings, Industry	(dollars)	469	484 *
Farm Cash Receipts	($ billions)	4.3	4.1
Mineral Production	($ billions)	3.8	3.8
Manufacturing Shipments	($ billions)	2.7	2.7 *
Retail Sales	($ billions)	4.4	4.7 **
New Capital Investment	($ millions)	3813	4180
Value of Building Permits	($ millions)	570	576 *
Housing Starts	(thousands)	5.2	5.4 ***
Consumer Price Index (1981 = 100)			
(Regina)		121.1	125.6
(Saskatoon)		120.0	124.2

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.9 Alberta

The signing of the Western Accord contributed to a rebound in the oil industry in Alberta during 1985 and an improvement in the general economic outlook. Signs of steady growth in the economy included large increases in new capital investment, retail spending and, after a year of large decreases, positive growth in new housing starts (3.9 percent) and the value of building permits (37 percent).

Given impetus by increased petroleum revenues, after the phasing out of heavy taxation and tight controls of the National Energy Program, the economy of Alberta advanced sufficiently to reduce unemployment by over one percentage point and the number of unemployed by 10 percent.

Production at the Fort McMurray and Cold Lake oil sands projects and natural gas exports increased. At the same time, industry concerns grew with the downward change in world oil prices as 1986 began.

In agriculture, farm receipts reflected a second consecutive year of drought, as farmers relied heavily on crop insurance programs to maintain operations. Livestock receipts increased over 1984 as herd reductions, brought about by the drought, were reflected in higher marketings. Growth in the value of manufacturing shipments paralleled that experienced in 1984, and at 8.6 percent, remained above the national average.

Wages and salaries and average weekly earnings, both of which showed little or no increase in 1984, rebounded in 1985. Increased employment in the oil field service sector helped push up retail spending by more than 12 percent above the national average. The consumer price index, while increasing slightly from 1984 levels, still registered a gain of only 3 percent compared to an increase nationally of 4 percent.

ALBERTA

Premier:	Donald Getty (Progressive Conservative)
Capital:	Edmonton
Area:	661,190 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	2341	2349
Labour Force	(thousands)	1254	1249
Employed	(thousands)	1114	1124
Unemployed	(thousands)	140	126
Wages and Salaries	($ billions)	20.9	22.6 *
Average Weekly Earnings, Industry	(dollars)	518	535 *
Farm Cash Receipts	($ billions)	3.9	3.7
Mineral Production	($ billions)	26.4	27.3
Manufacturing Shipments	($ billions)	13.8	15.0 *
Retail Sales	($ billions)	11.8	13.3 **
New Capital Investment	($ millions)	11903	13233
Value of Building Permits	($ millions)	1386	1899 *
Housing Starts	(thousands)	7.3	7.6 ***
Consumer Price Index	(1981 = 100)		
(Edmonton)		120.4	124.2
(Calgary)		120.0	123.5

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.10 British Columbia

The economy of British Columbia has gradually been recovering from extended recessionary conditions. Overall activity improved during 1985, spurred by preparations for the Expo '86 international fair.

The key primary sector experienced growth in several areas, though certain of the increase was in comparison to activity which was slowed by labour disputes in 1984. Coal production increased strongly. A 3 percent growth was registered for all mining, despite low world prices. In the fishing industry, landed values of the salmon catch reached near record levels in 1985. Increased investment in aquaculture benefitted the industry while income from the herring fisheries reflected depleted stocks. Agriculture also experienced small growth compared to a decline for Canada as a whole. Increased exports helped spur local economies, such as Prince Rupert, where commodity tonnage handled broke port records.

Manufacturing grew by 8.5 percent, almost twice the 1984 growth rate of 4.5 percent. Stronger external and domestic market conditions for forest products led to increased demand for many wood products. Increased housing construction in the U.S. and a favourable exchange rate relative to the U.S. dollar have contributed to this. Housing activity also experienced a strong turnaround nationally and in British Columbia. New housing construction within the province grew at a rate of 8.3 percent, compared to a decrease of 18.5 percent in 1984. New capital investment remained slightly below 1984 levels as several large development projects neared completion.

The labour force in British Columbia grew by 1.5 percent, and, with a rise of 2.2 percent in employment, achieved some decrease in the rate of unemployment. While growth in employment during 1985 was below national rates, it nevertheless represented an advance over the marginal gain in 1984 of 0.4 percent.

Wages and salaries increased more strongly than in 1984, and, with a 6 percent growth were just slightly below the national figure of 6.4 percent. Retail sales rose by over 8 percent, a clearly faster rise than the gain of 3.2 percent in the Vancouver consumer price index. In 1984, the index was nearly a percentage point higher.

BRITISH COLUMBIA

Premier:	William Bennett (Social Credit)
Capital:	Victoria
Area:	947,800 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	2865	2892
Labour Force	(thousands)	1410	1431
Employed	(thousands)	1202	1228
Unemployed	(thousands)	207	203
Wages and Salaries	($ billions)	23.6	24.9 *
Average Weekly Earnings, Industry	(dollars)	496	507 *
Farm Cash Receipts	($ billions)	.96	.95
Mineral Production	($ billions)	3.3	3.4
Manufacturing Shipments	($ billions)	17.6	19.1 *
Retail Sales	($ billions)	13.0	14.1 **
New Capital Investment	($ millions)	8662	8640
Value of Building Permits	($ millions)	2004	2180 *
Housing Starts	(thousands)	16.2	17.5 ***
Consumer Price Index (Vancouver)	(1981 = 100)	121.3	125.2

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.11 Yukon

Much of goods producing activity in the Yukon is linked to the Territory's mining sector, where closure of the large Cyprus Anvil lead-zinc mine, since 1982 has caused mining employment to decline from a high of 1,100 at that time to about 550 in 1985. In the past year, other mineral production, largely gold and silver, also declined in value terms. Renewed production by the major lead-zinc mine is anticipated for mid-1986.

Wages and salaries and average wages increased, but the rise in building permits and housing starts was much more noticeable during the year. Service and government sectors, with nearly 80 percent of the work force, made an important sustaining contribution to activity in the territory during the past year. This was accompanied by a modest growth in tourism.

YUKON

Government Leader:	Tony Penikett
Commissioner:	K. McKinnon
Capital:	Whitehorse
Area:	483,450 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	22.1	22.8
Employed (Industrial Aggregate)	(thousands)	8.4	8.0
Wages and Salaries 1)	($ millions)	920	924 *
Average Weekly Earnings, Industry	(dollars)	483	493 *
Mineral Production	($ millions)	70	58
Retail Sales 1)	($ millions)	335	373 **
New Capital Investment 1)	($ millions)	1803	1498
Value of Building Permits	($ millions)	24	32 *
Housing Starts***	(number)	118	133

1) Combined with Northwest Territories.

* estimates based on 10 months information
** estimates based on 11 months information
*** based on building permits data

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.12 Northwest Territories

The Northwest Territories experienced a number of economic gains during 1985. Mineral production values increased by over 8 percent, and building permits rose sharply, as did the number of housing starts. Stable growth conditions have prevailed for several years as oil exploration and discoveries on a major scale have proceeded in the Beaufort Sea. In October 1985, the federal government announced a new frontier energy policy which, among other provisions, abolished the retroactive 25 percent, back-in provision held by the federal government for all interests in frontier lands.

As in the Yukon, services and government make up approximately 80 percent of the labour force, and with certain responsibilities moved from the Federal to the Territorial government, accounts for some employment increase. In all, sectoral employment rose by approximately 4 percent during 1985.

NORTHWEST TERRITORIES

Government Leader:	Nick Sibbeston
Commissioner:	John H. Parker
Capital:	Yellowknife
Area:	3,426,320 square kilometres

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	49.5	50.9
Employed (Industrial Aggregate)	(thousands)	17.7	18.4
Wages and Salaries[1]	($ millions)	920	924 *
Average Weekly Earnings, Industry	(dollars)	564	573 *
Mineral Production	($ millions)	777	844
Retail Sales	($ millions)	335	373 **
New Capital Investment	($ millions)	1803	1498
Value of Building Permits	($ millions)	19	95 *
Housing Starts***	(number)	133	395

1) Combined with Yukon.

* estimates based on 10 months information
** estimates based on 11 months information
*** based on building permits data

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

5.13 CANADA

Prime Minister: Rt. Honourable Brian Mulroney (Progressive Conservative)
Capital: Ottawa
Area: 9,970,610 square kilometers

SELECTED ECONOMIC INDICATORS

		1984	1985
Population at June 1	(thousands)	25124	25359
Labour Force	(thousands)	12399	12639
Employed	(thousands)	11000	11311
Unemployed	(thousands)	1399	1327
Wages and Salaries	($ billions)	209.5	223.0 *
Average Weekly Earnings, Industry	(dollars)	476	494 *
Farm Cash Receipts	($ billions)	20.3	19.5
Mineral Production	($ billions)	43.8	44.8
Manufacturing Shipments	($ billions)	226.0	242.2 *
Retail Sales	($ billions)	116.1	127.8 **
New Capital Investment	($ millions)	75070	82102
Value of Building Permits	($ millions)	15502	19458 *
Housing Starts	(thousands)	134.9	156.7***
Consumer Price Index (St. John's)	(1981 = 100)	122.3	127.2

* estimates based on 10 months information
** estimates based on 11 months information
*** based on information for the first three quarters

Other data are for the full year 1985, or are released estimates for the year (farm income; mineral production; capital expenditures).

Certain standard series (as housing) do not include the Yukon or Northwest Territories. Separate estimates as available are included in Tables for the Territories.

Dollar figures refer to current dollars of the year stated; data at top showing area in square kilometers refer to total area.

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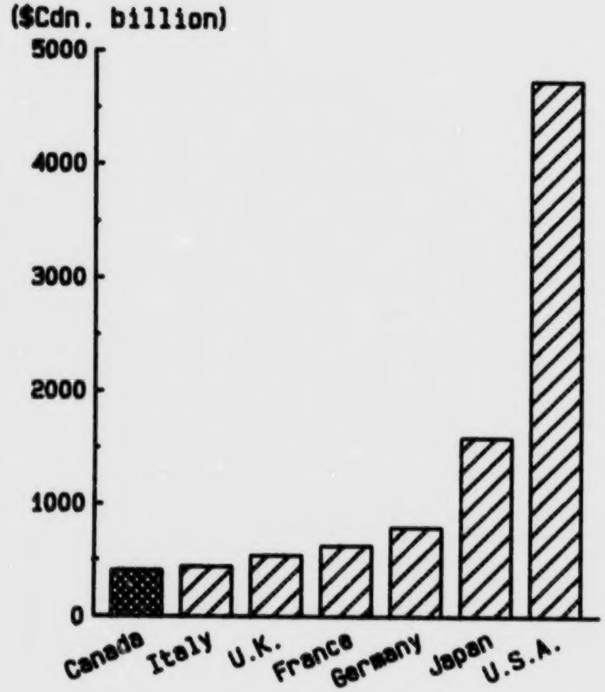
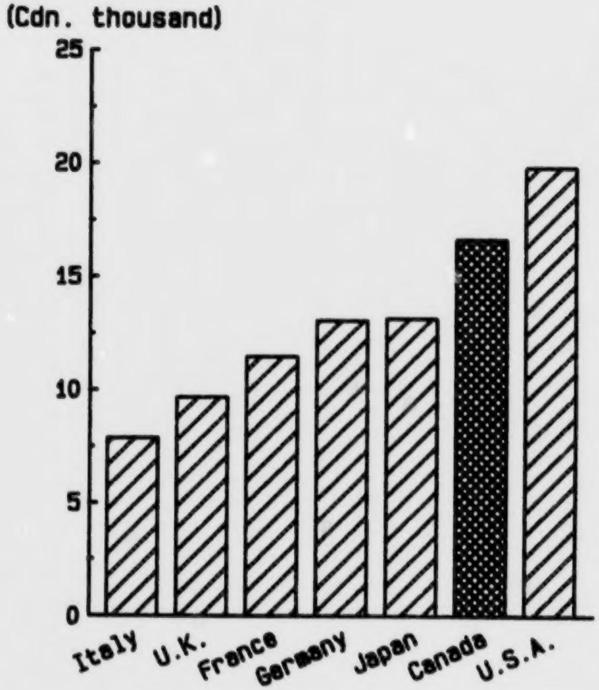
1. MACROECONOMIC INDICATORS

GNP by Selected OECD Countries - 1984



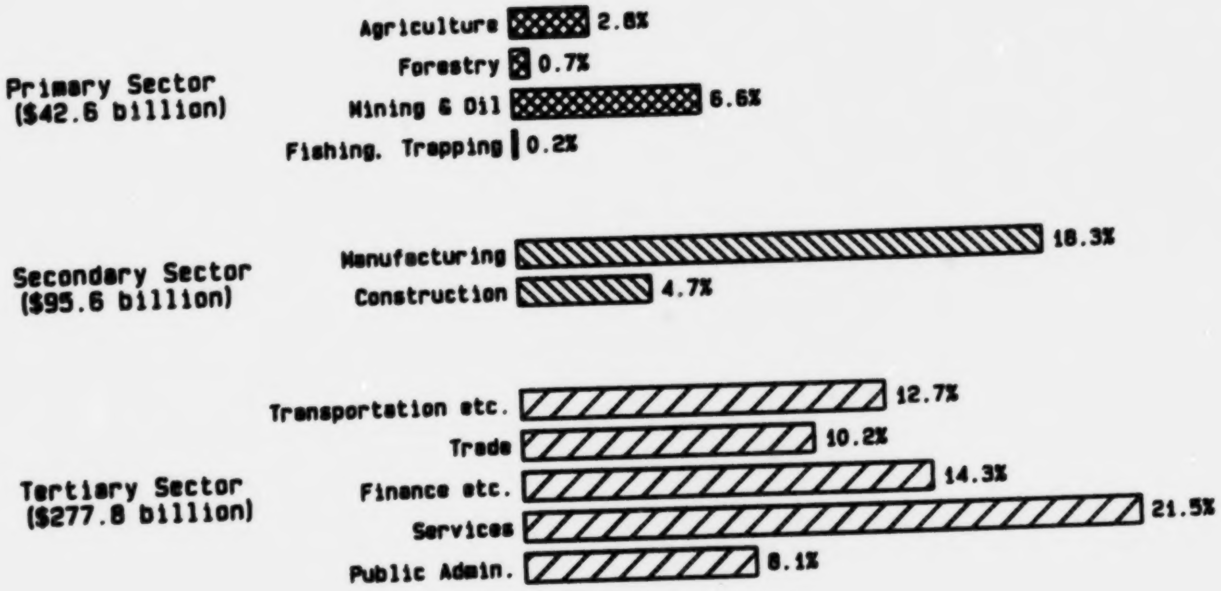
Source: OECD Main Economic
Indicators, May 1985.

GNP per capita: Selected OECD Countries - 1984



Source: OECD Main Economic
Indicators, May 1985.

Gross Domestic Product: Canada 1985
($416 billion)



Source: Statistics Canada.

REAL GROSS DOMESTIC PRODUCT PER CAPITA*

(at 1980 prices and exchange rates)

	1980	1981	1982	1983
		(Cdn.)		
Canada	12624	13300	12939	13152
United States	13380	14050	13893	14149
United Kingdom	11076	11217	11770	12134
Federal Republic of Germany	15474	15846	16163	16356
Japan	10413	11051	11641	11896
		index (1980 U.S. = 100)		
Canada	94.3	96.9	91.6	93.2
United States	100.0	102.4	98.3	100.3
United Kingdom	82.8	81.7	83.3	86.0
Federal Republic of Germany	115.6	115.3	114.4	116.0
Japan	77.8	80.5	82.5	84.3

Source: OECD, National Accounts 1960-83, 1985 Edition.

* Real Gross Domestic Product measured in 1980 prices and exchanges rates for international comparison.

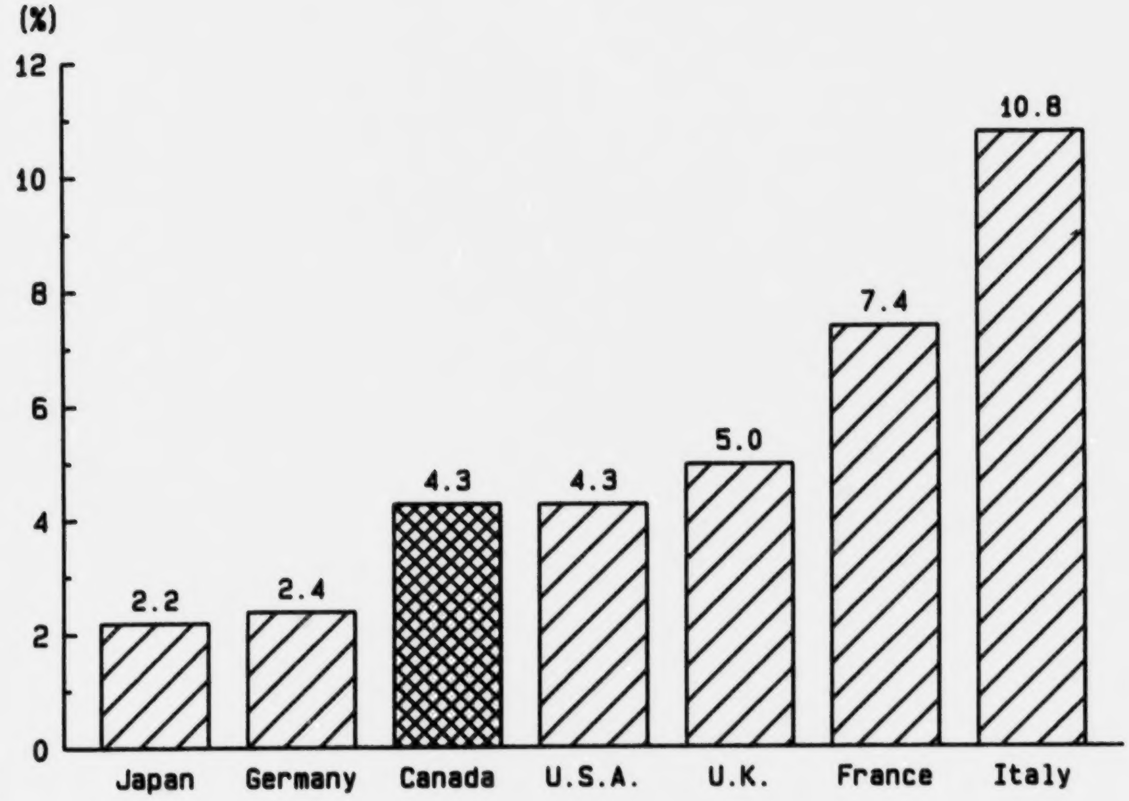
CANADIAN PRIVATE NON-FARM PRODUCTIVITY TRENDS COMPARED TO REAL GNP AND GDP GROWTH 1979-1985

	Private non-Farm Productivity	GNP	GDP
1979	0.2	3.2	4.0
1980	-0.8	1.1	1.3
1981	1.4	3.3	2.8
1982	-0.1	-4.4	-4.3
1983	2.4	3.3	2.7
1984	1.8	5.0	4.9
1985*	2.2	4.5	3.5

* estimate

Source: Conference Board of Canada (1985).

CPI by Selected OECD Countries
1984



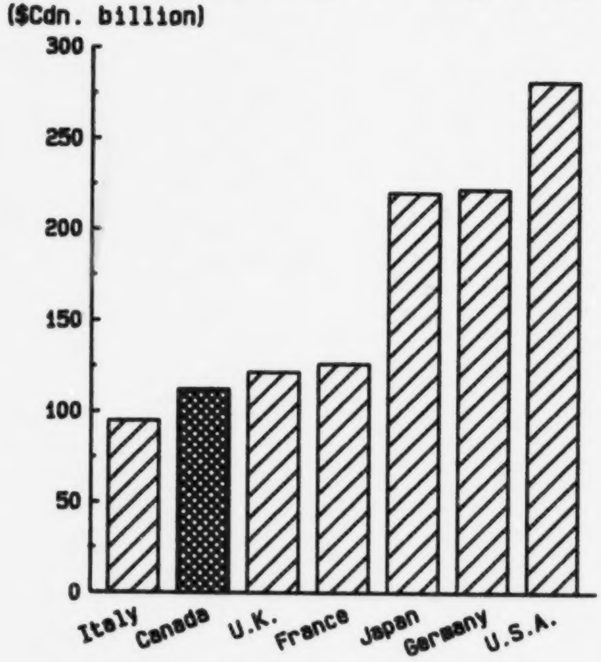
Source: OECD Main Economic Indicators,
May 1985.

INDEX OF COMPARATIVE STOCK MARKET PERFORMANCE

Year	Quarter	TSE Composite	S&P 500	D.J. Indust.	London
1982	1	100.0	100.0	100.0	100.0
	2	86.1	99.0	98.7	98.2
	3	100.0	110.5	108.9	104.5
	4	123.3	125.8	127.2	106.5
1983	1	135.8	136.5	137.3	116.6
	2	154.1	150.1	148.5	128.0
	3	157.5	150.9	149.9	123.4
	4	160.8	148.4	153.0	137.3
1984	1	150.0	142.1	141.6	155.6
	2	139.9	138.2	137.6	143.0
	3	150.7	149.9	146.7	154.7
	4	151.2	148.5	147.3	169.4
1985	1	164.6	161.9	154.0	174.6
	2	170.8	170.5	162.3	169.7
	3	165.8	164.4	161.5	178.7
	4	182.7	190.7	188.0	201.5

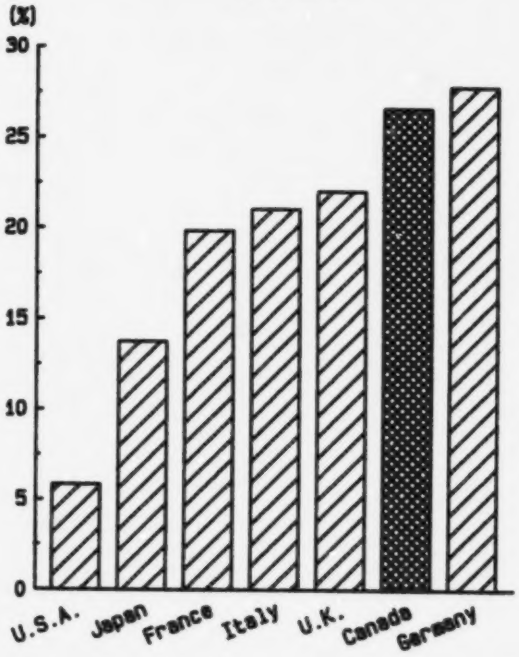
2. INTERNATIONAL TRADE

Exports by Selected OECD Countries – 1984
(including re-exports)



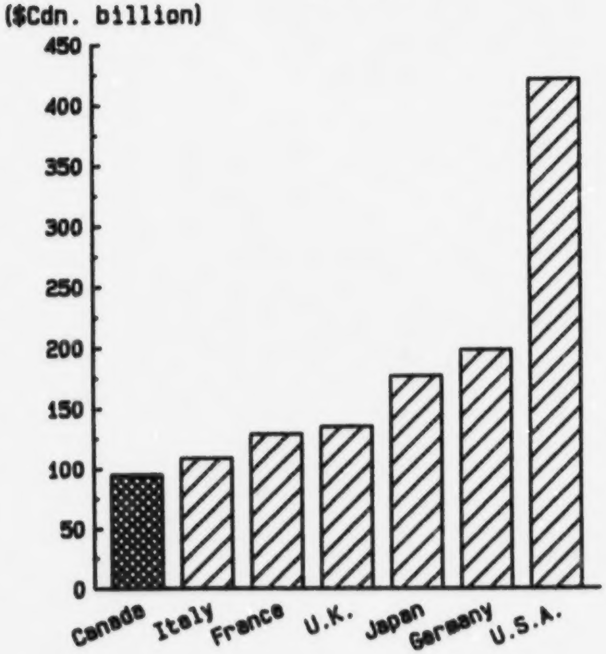
Source: OECD Main Economic
Indicators, May 1985.

Exports as % of GNP Selected OECD Countries 1984



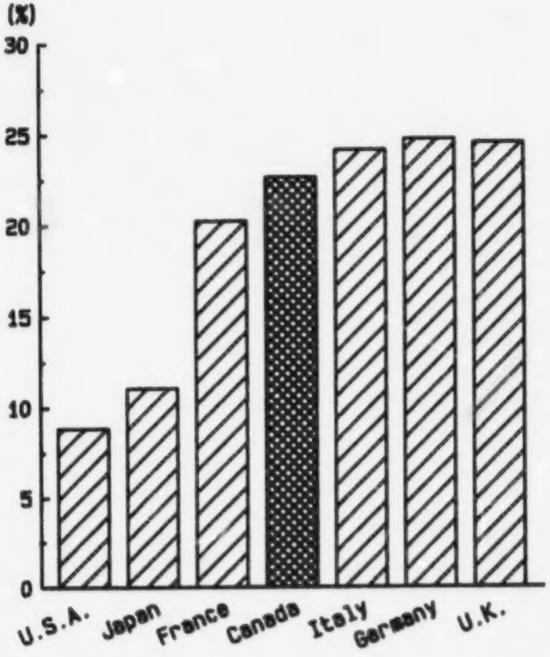
Source: OECD Main Economic
Indicators, May 1985.

Imports by Selected OECD Countries 1984



Source: OECD Main Economic Indicators, May 1985.

Imports as % of GNP Selected OECD Countries 1984



Source: OECD Main Economic Indicators, May 1985.

DIRECTION OF CANADIAN TRADE, 1985*

(Customs Basis)

Country	Domestic Exports		Imports		Balance
	$B	%	$B	%	$B
United States	91.1	78.3	75.5	71.4	15.6
Japan	5.7	4.9	6.1	5.8	-0.4
United Kingdom	2.4	2.1	3.2	3.0	0.8
USSR	1.6	1.4	0.03	0.03	1.6
P.R. China	1.3	1.1	0.4	0.4	0.9
W. Germany	1.2	1.0	2.7	2.6	-1.5
Netherlands	0.9	0.8	0.6	0.6	0.3
Belgium-Luxembourg	0.7	0.6	0.5	0.5	0.2
S. Korea	0.8	0.7	1.6	1.5	-0.8
France	0.7	0.6	1.4	1.3	-0.7
Mexico	0.4	0.3	1.4	1.4	-1.0
Italy	0.5	0.4	1.3	1.2	-0.8
Taiwan	0.4	0.3	1.3	1.2	-0.9
Australia	0.6	0.5	0.3	0.3	0.3
Hong Kong	0.3	0.3	0.9	0.9	-0.6
Other	7.8	6.7	8.6	8.1	
TOTAL	116.4	100.0	105.8	100.0	10.6

* 11 months annualized.

Source: Statistics Canada, Summary of External Trade.

3. ENERGY

3. ENERGY

CRUDE OIL AND EQUIVALENT SUPPLY AND DEMAND IN CANADA (000 m^3/day)

Year	Indigenous Supply	Imports	Exports	Total Demand	Reserves (million m^3)
1980	244.6	88.1	32.7	331.2	951
1981	220.1	80.9	25.7	303.1	1063
1982	217.6	53.9	34.0	270.8	1021
1983	230.0	39.9	45.8	271.4	1023
1984	241.8	39.3	54.1	281.4	1124
1985*	251.0	43.0**	74.0**	290.0	n.a.

* Estimate.

** Swaps not included after June 1985

Source: EMR Energy Statistics Handbook.

NATURAL GAS SUPPLY AND DEMAND IN CANADA (millions m^3)

Year	Indigenous Supply	Domestic Demand	Exports	Total Demand	Reserves (billion ft^3)
1980	78509.9	56327.4	22562.8	78890.2	88400
1981	75539.1	53368.1	21583.8	74951.9	90500
1982	77051.4	53676.2	22196.7	75872.8	97000
1983	72472.6	53202.4	20169.3	73370.7	90500
1984	79368.8	57664.5	21401.6	79046.1	90300
1985*	62175.6	42920.4	18893.2	61813.6	n/a

* Cumulative to September 1985.

ELECTRIC POWER SUPPLY AND DEMAND, 1984

Province	Peak Demand (mW)	Installed Capacity (mW)
Newfoundland	1973	6823
Prince Edward Island	107	124
Nova Scotia	1315	2035
New Brunswick	1888	2968
Quebec	25118	26788
Ontario	20088	28359
Manitoba	2890	3949
Saskatchewan	2207	2602
Alberta	5050	6949
British Columbia	8273	12062
NWT/Yukon	155	286

Source: EMR in-house publication supplement to Electrical Power in Canada.

REPRESENTATIVE RETAIL PRICES FOR SELECTED REFINED PETROLEUM PRODUCTS - SEPTEMBER 1985

		Gasoline		Automotive	Heating Oil	
	Regular Leaded	Regular Unleaded	Premium Unleaded	Diesel Fuel	Domestic	Industrial* (1)(2)
			(cents per litre)			
Newfoundland	60.9	63.5	64.3	64.4	40.7)	
Prince Edward Island	58.4	60.3	61.2	61.0	38.7)	19.58
Nova Scotia	57.7	59.5	60.5	55.9	38.3)	(Atlantic)
New Brunswick	55.9	57.9	58.9	52.9	38.9)	
Quebec	57.8	60.4	61.8	51.4	38.5	18.01
Ontario	49.1	52.2	53.2	49.4	38.3	18.44
Manitoba	52.9	53.8	54.8	46.5	38.3	
Saskatchewan	43.7	45.5	46.6	42.1	37.9	21.02
Alberta	43.6	45.7	46.9	37.5	n.a..	(Prairie)
British Columbia	55.6	57.5	58.4	45.0	37.6	18.42
CANADA	51.8	54.3	55.4	47.7	38.4	18.78
¢ per U.S. gal.	143.1	150.0	153.0	131.8	106.1	

* No. 6 fuel oil, 3 percent sulphur.

(1) Prices are the industry average per litre realized on the sale to industrial users for this class of oil.

(2) Atlantic, Quebec, Ontario, Prairies, British Columbia and Canada.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

PRICES IN VARIOUS COUNTRIES FOR SELECTED

REFINED PETROLEUM PRODUCTS - SEPTEMBER, 1985

	Regular Leaded Gasoline		Domestic Heating Oil	
	¢ litre	¢/U.S. gallon	¢ litre	¢/U.S. gallon
Canada	51.8	143.1	38.4	106.1
United States	40.9	113.0	37.6	103.9
United Kingdom	85.8	237.0	43.5	120.2
France	87.2	240.9	46.6	128.7
Italy	99.5	274.9	48.5	134.0
West Germany	70.9	195.9	38.5	106.4

Source: Energy, Mines and Resources.

COMPARATIVE DOMESTIC PRICES* FOR ELECTRICITY

	Commercial 1000 KWH Demand 500,000 KWH Consumption	Industrial 5000 KW Demand 3.1 MWH Consumption
	(¢/KWH)	
Newfoundland	5.23	4.92
Prince Edward Island	11.44	10.62
Nova Scotia	6.20	4.33
New Brunswick	6.47	4.24
Quebec	4.03	2.86
Ontario	4.24	3.85
Manitoba	3.02	2.52
Saskatchewan	4.94	4.51
Alberta	3.80	3.17
British Columbia	4.00	3.15
Canada average	4.27	3.42

* September, 1985.

Source: Energy, Mines and Resources.

TYPICAL MONTHLY ELECTRICITY COSTS FOR SELECTED CANADIAN CITIES, JANUARY 1, 1985

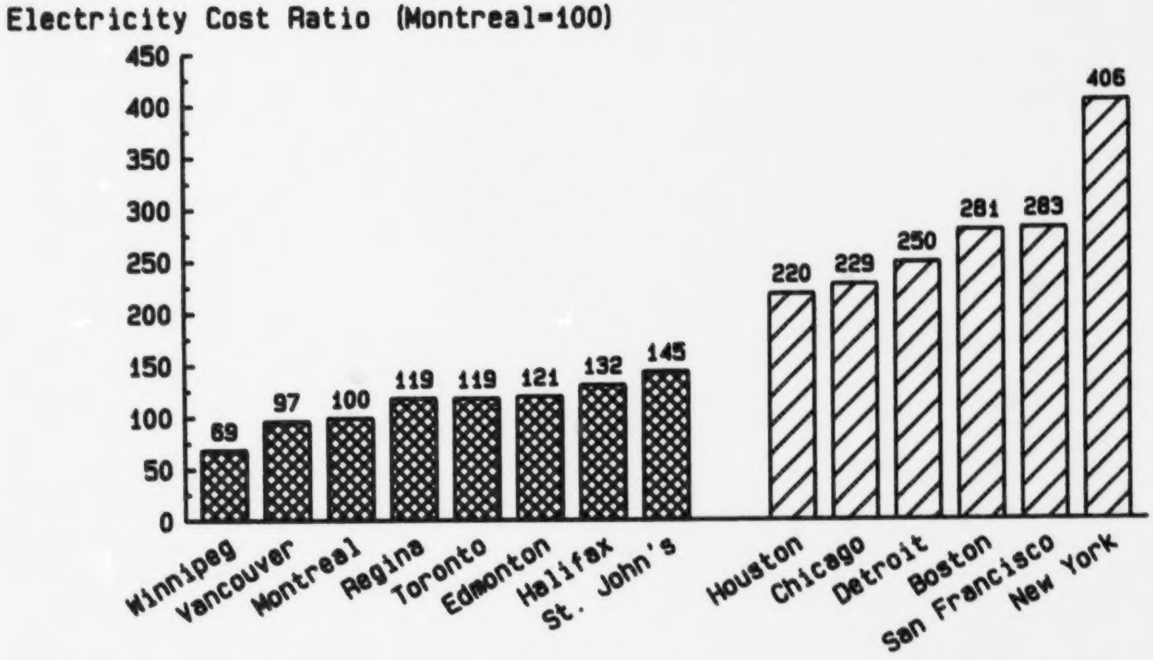
Sector	Residential	Commercial	Industrial
Billing demand (1) (KW)	-	100	1000
Consumption (KWh)	1000	25000	400000
		Dollars	
Vancouver	51.41	1,284.37	15,462.10
Calgary	50.48	1,469.71	16,949.39
Edmonton	48.30	1,458.40	18,644.52
Regina	47.26	1,497.20	19,009.70
Winnipeg	36.44	963.25	10,940.77
Toronto	50.91	1,564.00	18,970.00
Ottawa	45.36	1,184.18	16,814.18
Montreal	37.07	1,334.10	15,492.80
Moncton	57.43	1,948.12	19,480.00
Halifax	65.22	2,047.21	21,134.61
Charlottetown	116.62	3,419.56	44,359.86
St. John's	64.73	1,889.50	24,090.62
Whitehorse	66.30	2,205.00	n.a.
Yellowknife	95.00	3,255.50	48,605.00

n.a. - not applicable.

Source: Statistics Canada, Publication 57-203.

(1) Electricity costs for commercial and industrial accounts are based on a dual meter system. One meter registers the peak load of electricity used during the period (billing demand) and the second meter registers actual consumption during the period.

Comparative Cost of Electricity
Canadian and U.S. Cities
1985



Source: Montreal Urban Community,
Department of Economic Expansion.

COMPARATIVE DOMESTIC COSTS FOR NATURAL GAS (1984)

$ per 10 cubic metres (1000 cubic feet)

	Commercial		Industrial	
Quebec	2.21	(6.26)	1.78	(5.04)
Ontario	1.85	(5.24)	1.59	(4.50)
Manitoba	1.64	(4.64)	1.40	(3.96)
Saskatchewan	1.24	(3.51)	1.19	(3.37)
Alberta	1.02	(2.89)	0.77	(2.18)
British Columbia	1.61	(4.56)	1.29	(3.65)
Canada	1.55	(4.39)	1.28	(3.62)

Source: Energy, Mines and Resources.

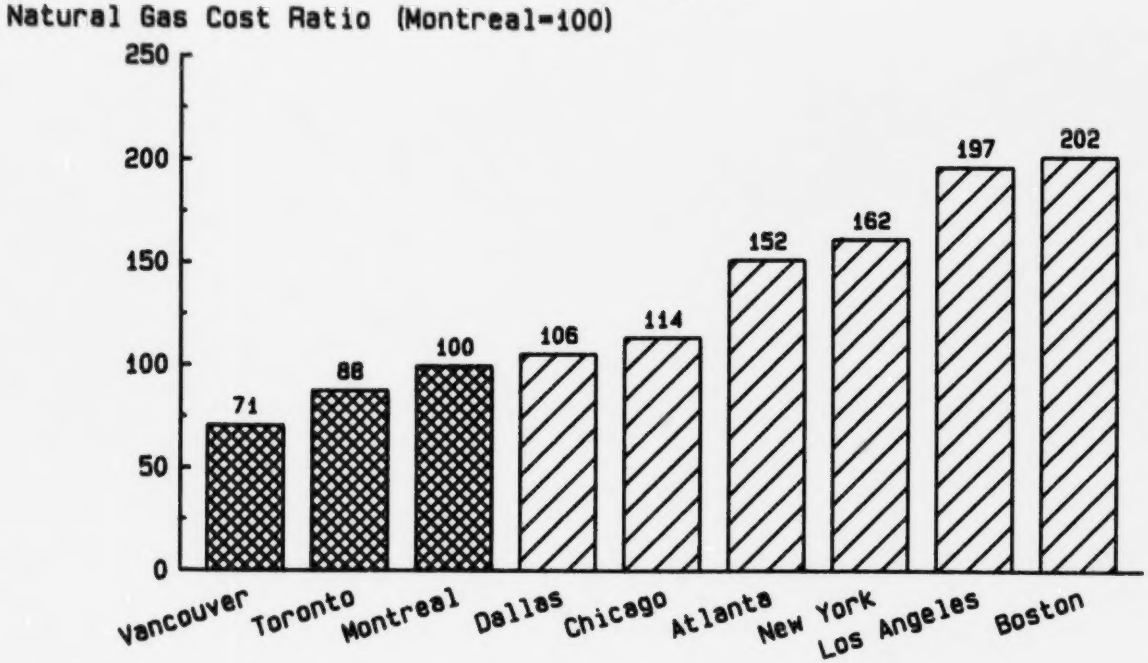
COAL SUPLY AND DEMAND IN CANADA (kilotonnes)

		Domestic		Total	
1980	Production	Imports	Demand	Exports	Demand
1980	36664	15869	37333	15269	52602
1981	40088	14844	38367	15705	54072
1982	42811	15775	41481	16004	57485
1983	44780	14667	43649	17011	60660
1984	57402	18359	48699	25138	73837
1985*	60500	16000	48000	27000	75000

Cumulative to September 1985.

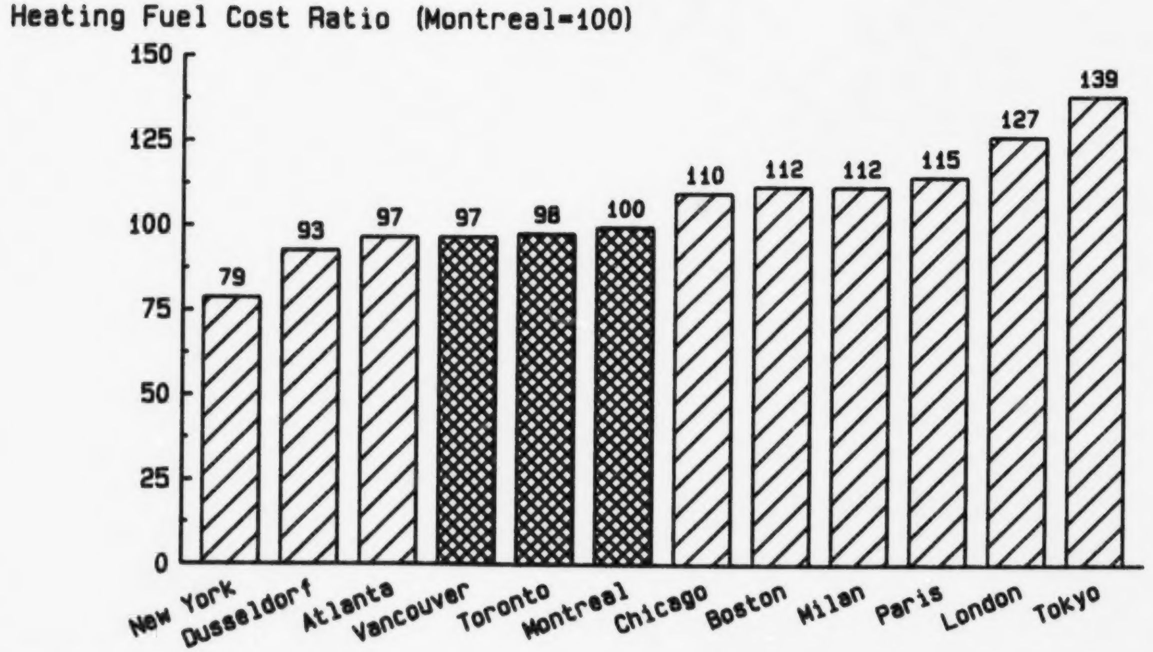
* Estimate

Comparative Cost of Natural Gas
Canadian and U.S. Cities
1984



Source: Montreal Urban Community.
Department of Economic Expansion.

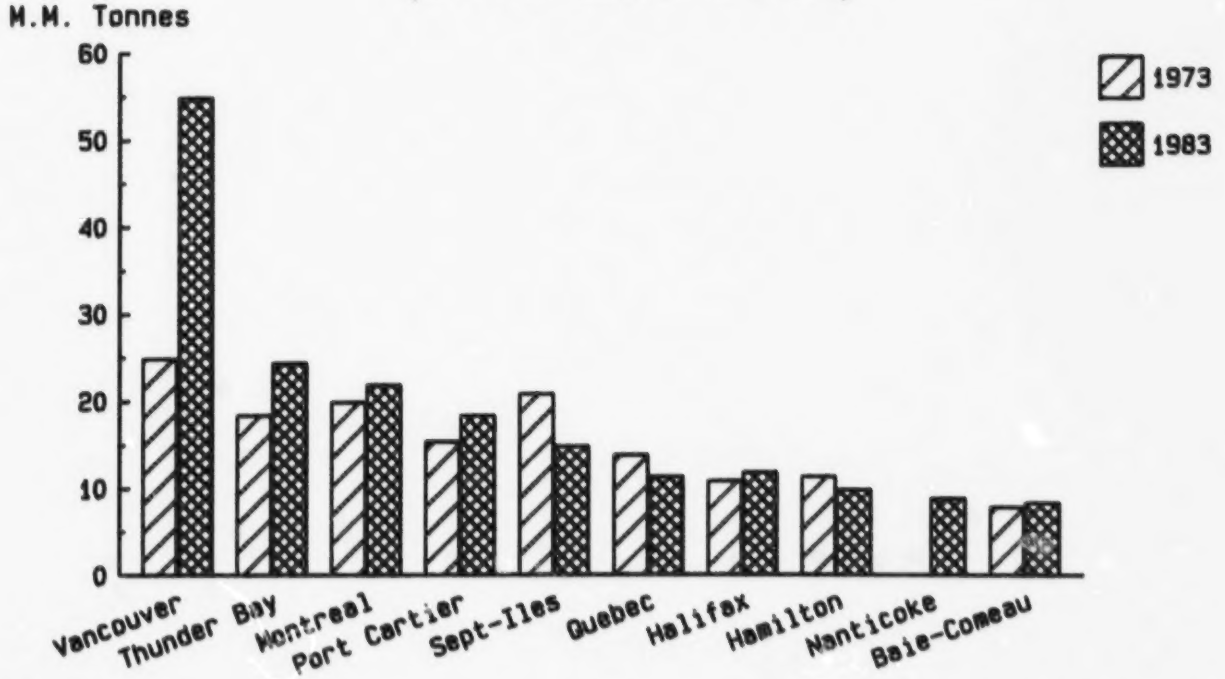
Comparative Cost of Heating Fuel
1984



Source: Montreal Urban Community,
Office of Economic Development,
Decision Montreal.

4. TRANPORTATION AND COMMUNICATIONS

Cargo Tonnage Handled at Major Canadian Ports (1973 and 1983)



Source: Statistics Canada

AVERAGE RAIL SHIPPING COSTS FOR PACKAGED FURNITURE, CITY TO CITY (CANADA, 1985)*

Route	Distance	Price per Hundred-weight	Weight range (pounds)	Dollar Cost per km/mile
Halifax-Montreal	1352 km. 840 mi.	$4.06-$4.46	24,000-45,000	$0.79-$1.35 per km. $1.27-$2.17 per mi.
Montreal- Toronto	539 km 335 mi.	$4.68-$6.82	20,000-45,000	$2.53-$3.90 per km. $4.07-$6.28 per mi.
Toronto-Winnipeg	1989 km 1236 m	$6.47-$11.89	15,000-40,000	$0.89-$1.30 per km. $1.44-$2.09 per mi.
Calgary-Vancouver	1031 km 645 mi	$4.63-$5.53	30,000-40,000	$1.61-$1.79 per km. $2.59-$2.89 per mi.
Vancouver-Toronto	4360 km 2710 mi.	$6.84-$10.13	24,000-40,000	$0.56-$0.63 per km. $0.89-$1.01 per mi.

Source: CN Rail.

* The following rate examples are based on a shipment of packaged office furniture, transported by container or piggy-back. The size of truck/ container vary according to particular route, as does the applicable rate. "Freight-all-kind" or "Furniture, office".

AVERAGE TRUCKING COSTS FOR PACKAGED FURNITURE

CITY TO CITY (CANADA 1985)*

Route	Full cost Distance	Dollar cost of truck	per km./mi.
Halifax-Montreal	1249 km 775 mi	$1800	$1.4 per km. 2.3 per mi.
St. John, N.B - Montreal	940 km 583 mi	$1350	$1.4 per km. 2.3 per mi.
Rivière du-Loup, Que. - Montreal	452 km 280 mi.	$750	1.6 per km 2.6 per mi.
Quebec City - Montreal	270 km. 168 mi.	$470	1.7 per km 2.8 per mi.
Montreal - Toronto	539 km 335 mi	$625	1.2 km 1.9 mi.
Toronto - Winnipeg	2099 km 1303	$2600	1.2 km 2.0 mi.
Calgary - Edmonton	299 km 186 mi.	400	1.3 km. 2.2 mi.
Regina - Winnipeg	571 km 355 mi.	800	1.4 km. 2.3 mi.
Calgary - Vancouver	1057 km 656 mi.	1350	1.3 km 2.1 mi.
Vancouver - Toronto	4492 km	$3000	0.6 km 1.1 mi.
Toronto - Vancouver	2789 mi.	$5000	1.1 km. 1.8 mi.

Source: Based on quotes from private companies.

* The following rate examples are based on a shipment of packaged office furniture, transported by private transport company. The prices would be those based as well on city-city rate, using a full truckload, and an ongoing contract basis for Canadian destinations. Truck size 45-48 feet.

TELEX RATES* BETWEEN SELECTED POINTS

and

Between	Vancouver $	Edmonton $	Winnipeg $	Toronto $	Montreal $
Halifax	1.23	1.23	1.23	.82	.51
Montreal	1.23	1.23	1.03	.72	
Toronto	1.23	1.23	.82		
Winnipeg	.82	.72			
Edmonton	.62				

* rates are per minute.

Source: CNCP Telecommunications. (May 1985).

SELECTED TELEPHONE SERVICE RATES

	Halifax	Montreal	Toronto	Winnipeg	Edmonton	Vancouver
Monthly Rate Business Basic Service (one line) (one phone)	$37.50 + dep. & install.	$40.60 + dep. & install.	$43.75 + dep. & install.	$20.00 + dep. & install.	$29.75 + dep. & install.	$47.60 + dep. & install.
Long Distance*	to	to	to	to	to	to
Halifax		2.55 5.50	2.88 6.20	3.21 7.20	3.10 7.14	3.30 7.50
Montreal	2.61 6.36		3.15 6.50	3.00 6.50	3.15 7.14	3.30 7.50
Toronto	2.85 6.60	2.01 6.50		3.00 6.50	3.15 7.14	3.30 7.50
Winnipeg	2.94 6.69	3.00 6.50	3.00 6.50		2.73 5.90	3.00 6.50
Edmonton	3.12 6.87	3.30 7.50	3.30 7.50	2.88 6.20		2.52 2.94
Vancouver	3.12 6.87	3.30 7.50	3.00 6.50	3.00 6.50	2.67 4.79	

* 09:00 to 17:00; Monday to Friday; 3 minutes; upper: station-to-station, customer-dialed; lower: person-to-person, operator service. (January 1986)

5. WAGES AND COSTS TO EMPLOYERS

5. WAGES AND COSTS TO EMPLOYERS

International comparisons of average hourly earnings and compensation in manufacturing are shown below. Hourly compensation is defined as (1) all payments made directly to the worker - pay for time worked (basic time and piece rates plus overtime premiums, and cost-of-living adjustments), pay for time not worked (vacations, holidays, and other leave), all bonuses and other special payments, and the cost of payments in kind - before payroll deductions of any kind and (2) employer contributions to legally required insurance programs and contractual and private benefit plans. In addition, for some countries, compensation is adjusted for other taxes on payrolls or employment (or reduced to reflect subsidies), even if they are not for the direct benefit of workers, because such taxes are regarded as labor costs. However, hourly compensation does not include all items of labor costs. The costs of recruitment, employee training, and plant facilities and services - such as cafeterias and medical clinics - are not covered because data are not available for most countries. For consistency, compensation is measured on an hours-worked basis for every country.

AVERAGE HOURLY EARNINGS AND COMPENSATION IN MANUFACTURING 1984

	Ave. Hourly Index ($C)	Index Canada = 100	Ave. Hourly Compensation ($C)	Index Canada = 100
Canada	11.16	100.0	14.24	100.0
United States	11.89	106.5	16.30	114.5
United Kingdom	5.69	61.0	7.57	53.2
Federal Republic of Germany	7.07	63.4	12.37	89.9
Japan	7.04	63.1	8.22	57.7

Source: U.S. Department of Labor, Bureau of Labor Statistics.

HOURLY COMPENSATION COST FOR PRODUCTION WORKERS, ALL MANUFACTURING, SELECTED COUNTRIES

($Cdn.)

	1977	1978	1979	1980	1981	1982	1983	1984
($Cdn/ $US)	1.0635	1.1402	1.1715	1.1690	1.199	1.2341	1.2324	1.2948
Canada	7.66	8.29	9.01	9.86	11.16	12.54	13.46	14.24
USA	8.07	9.44	10.57	11.48	12.94	14.22	14.84	16.30
Japan	4.29	6.32	6.43	6.56	7.41	7.03	7.56	8.22
FRG	8.37	11.00	13.23	14.43	12.63	12.81	12.73	12.37
UK	3.56	4.88	6.50	8.63	8.45	8.34	10.29	7.58
France	5.65	7.46	9.20	10.66	9.77	9.89	9.76	9.61
Italy	5.42	6.94	8.34	9.35	8.86	9.08	9.53	9.66

Source: U.S. Department of Labour, 1985.

TOTAL COST* TO EMPLOYER IN FOUR PROFESSIONS: MACHINIST, PRODUCTION MANAGER, ELECTRICAL ENGINEER, AND SECRETARY

'000 U.S. DOLLARS (1984)

	Montreal	Toronto	Vancouver	Chicago	Los Angeles	New York
Machinist	32499	31743	35080	47998	43825	44140
Production Manager	54576	50789	57550	61825	59089	66449
Electrical Engineer	41557	42709	46430	56281	58442	53124
Secretary	23165	22451	24534	30408	31892	29852

Source: Décision Montreal.

* Total cost to employer, includes the gross salary paid to the employee and all the social costs the employer must pay.

HOURLY COMPENSATION, OUTPUT PER HOUR, AND UNIT LABOUR COSTS IN MANUFACTURING SELECTED COUNTRIES, 1982-1984

(Average Annual Percentage Change)

Country	1982	1983	1984
(i) Hourly Compensation: U.S. Dollar Basis			
Canada	10.3	6.8	1.6
France	18.3	12.2	8.9
Germany	5.3	4.1	3.6
Italy	20.4	16.7	10.4
Japan	5.2	3.4	3.2
United Kingdom	8.7	7.2	7.9
United States	9.4	8.8	3.6
(ii) Output per Hour			
Canada	-2.8	6.4	4.0
France	6.5	4.3	5.0
Germany	1.2	4.7	4.7
Italy	2.0	2.4	6.3
Japan	7.1	5.1	9.5
United Kingdom	4.6	6.7	3.9
United States	2.1	4.3	3.5
(iii) Unit Labour Costs: U.S. Dollar Basis			
Canada	10.2	0.5	-7.0
France	-8.1	-7.1	-9.5
Germany	-3.4	-5.4	-11.2
Italy	-0.7	1.6	-10.1
Japan	-13.0	3.1	-5.7
United Kingdom	-10.2	12.9	-8.4
United States	6.6	-0.8	0.1

Source: United States, Department of Labor, Bureau of Labor Statistics.

COMPARATIVE HOURLY WAGE RATES
IN CANADA AND U.S. BY REGION
YEARLY AVERAGES, 1982 TO 1985

(current Canadian dollars)

CENTRAL	1982	1983	1984	(August) 1985
Ontario	10.16	10.52	11.16	11.59
Quebec	9.45	9.81	10.40	10.91
Michigan	13.80	14.32	15.76	17.04
Indiana	12.08	12.45	13.53	14.40
Ohio	12.43	13.01	14.19	15.28
Kentucky	10.34	10.83	12.02	12.90
West Virginia	11.60	12.00	12.86	13.80
Tennessee	8.84	9.23	10.27	11.21
North Carolina	7.84	8.23	9.08	9.91
South Carolina	8.24	8.66	9.43	10.34
ATLANTIC				
New Brunswick	9.37	9.74	10.15	10.33
Nova Scotia	9.02	9.74	9.93	9.89
Prince Edward Island	n.a.	6.96	7.21	7.34
Newfoundland	9.27	9.07	10.32	9.70
New Hampshire	8.58	9.10	10.16	11.40
Vermont	9.07	9.44	10.40	11.41
New York	10.30	10.89	11.94	13.01
Pennsylvania	10.65	11.03	12.02	12.93
Massachusetts	9.35	9.87	11.01	12.24
Connecticut	10.16	10.80	11.94	12.92
Rhode Island	8.16	8.53	9.36	10.25
New Jersey	10.74	n.a.	12.30	13.34
Delaware	10.66	11.25	12.04	13.07

Source: Statistics Canada: Employment, Earnings and Hours;
U.S. Bureau of Labor Statistics.

COMPARATIVE HOURLY WAGE RATES IN CANADA AND U.S.A. BY REGION

YEARLY AVERAGES, 1982 TO 1985

(Current Canadian dollars)

WESTCOAST	1982	1983	1984	(August) 1985
British Columbia	13.87	14.17	14.58	15.06
Alberta	11.93	12.13	11.26	12.48
Washington	13.86	14.07	15.03	15.89
Idaho	10.64	10.46	12.09	12.84
Oregon	12.37	12.67	13.52	13.91
Montana	12.16	12.84	12.07	12.96(May)
Wyoming	10.53	10.75	11.47	13.10
California	11.40	11.73	12.65	13.72
Nevada	10.86	11.12	11.81	12.50
Utah	10.37	10.73	11.59	12.72
Colorado	10.65	11.05	11.96	12.78
PRAIRIES				
Manitoba	9.07	9.14	9.80	9.97
Saskatchewan	11.13	10.97	11.39	11.60
North Dakota	9.26	9.54	10.18	10.06
South Dakota	9.08	8.97	9.26	10.19
Minnesota	11.24	11.78	12.62	13.56
Wisconsin	11.56	12.05	12.99	13.64
Iowa	12.34	12.43	13.27	14.07
Nebraska	10.40	10.78	11.55	12.21
Missouri	10.44	10.96	9.00	9.77
Kansas	10.82	11.44	12.17	12.66
Illinois	11.48	11.95	13.05	14.13

Source: Statistics Canada: Employment, Earnings and Hours; U.S. Bureau of Labor Statistics. State of Washington, Department of Employment Security.

EMPLOYEE BENEFIT COSTS IN CANADA AND THE UNITED STATES

EXPRESSED AS A PERCENTAGE OF GROSS ANNUAL PAYROLL - 1984

	Overall		Manufacturing		Non-manufacturing	
	United States(a) (%)	Canada (%)	United States(a) (%)	Canada (%)	United States(a) (%)	Canada (%)
OVERALL	36.7	32.5	39.1	33.8	34.6	31.3
Paid vacations and payments in lieu of vacation	4.6	6.4	5.0	6.4	4.2	6.4
Payments for holidays not worked	2.8	3.8	3.1	3.8	2.6	3.8
Payments for guard, jury or witness duty, death in the family or other personal reasons	0.4	0.9(g)	0.3	1.1(g)	0.5	0.7(g)
PAYMENTS FOR TIME NOT WORKED	7.8	11.1	8.4	11.3	7.3	10.9
Old age, survivors and disability insurance	6.6	1.2(b)	6.7	1.2(b)	6.5	1.2(b)
Unemployment compensation	1.4	2.1	1.8	2.1	1.2	2.0
Workmen's compensation	1.4	1.2	2.1	1.3	0.8	1.0
Railroad retirement tax, railroad unemployment insurance, state sickness benefits insurance etc.	0.1	-	0.1	-	0.1	-
LEGALLY REQUIRED PAYMENTS	9.5	4.4	10.6	4.6	8.6	4.2
Pension plan premiums and pension payments not covered by insurance type plan (net)	5.0	4.1	4.6	4.0	5.3	4.3
Life insurance premiums, death benefits, hospital, surgical medical, LTD premiums, paid sick leave, etc. (Net)	7.8	5.2	8.6	5.4	7.1	5.1
Short term and long term disability insurance	0.6	(c)	0.7	(c)	0.6	(c)
Dental insurance premiums	0.4	(c)	0.5	(c)	0.4	(c)
Discount on goods and services purchased from company by employees	0.1	(f)	*	(f)	0.2	(f)
Miscellaneous payments (free meals, separation or termination pay allowance, moving allowance compensation payments in excess of legal requirements, etc.)	0.4	2.1(d)	0.2	2.7(d)	0.5	1.4(d)
Paid rest periods, lunch periods, washup, travel clothes - change and get ready time	2.8	3.9(e)	3.0	3.5(e)	2.6	4.3(e)

EMPLOYEE BENEFIT COSTS IN CANADA AND THE UNITED STATES

EXPRESSED AS A PERCENTAGE OF GROSS ANNUAL PAYROLL - 1984 (continued)

	Overall		Manufacturing		Non-manufacturing	
	United States(a) (%)	Canada (%)	United States(a) (%)	Canada (%)	United States(a) (%)	Canada (%)
PENSION AND OTHER AGREED-UPON PAYMENTS	1.71	15.3	17.6	15.6	16.7	15.1
Profit sharing and thrift plan payments, Christman or other special bonuses, service awards, suggestion awards, tuition, etc.	1.8	1.7(h)	2.0	2.2(h)	1.7	1.2(h)
Special wage payments ordered by courts, payments to union stewards,	0.2	-	0.2	-	0.2	-
Employee Education Expenditures	0.2	(f)	0.1	(f)	0.3	(f)
OTHER ITEMS	2.2	1.7	2.3	2.2	2.2	1.2

(a) U.S. source EMPLOYEE BENEFITS, 1982 prepared by the Economic Analysis and Study Group, The Chamber of Commerce of the United States.
(b) Figure covers CPP/QPP contributions. Previous editions of this table included these costs with private pension plans.
(c) Canadian figures included in Life Insurance Premiuns. Accident and Medical Insurance, etc.
(d) Includes Other Noncash Benefits (free lodging, loss of cafeteria, recreational projects, etc.)
(e) Canadian figures cover rest periods and coffee breaks.
(f) Canadian figures included in miscellaneous payments.
(g) Canadian figures include bereavement, jury duty and other paid time off.
(h) Canadian figures include profit sharing and bonus plan payments only.

* Less than 0.5 percent.

Source: Thorne Stevenson & Kellogg, Employee Benefit Costs in Canada 1984.

6. STRIKES AND LOCKOUTS

6. STRIKES AND LOCKOUTS

The Nature of Labour Relations In Canada

A decentralized approach to collective bargaining is one of the most distinctive features of Canadian labour relations. Due to the federal/provincial division of powers, the federal government exercises jurisdiction in labour relations matters over approximately 10 percent of the labour force, with the remaining 90 percent falling within various provincial authorities.

Unlike most European union structures, the Canadian labour federations (such as the Canadian Labour Congress) have no bargaining authority. Most bargaining in Canada takes place between a single employer and a single union. This allows individual firms to exercise a large degree of influence on their own labour terms and climate, and reduces the potential of national-level of industry-wide stoppages.

The decentralized union structure allows Canadian unions to be more flexible and responsive to local issues and concerns than some counterparts in other industrialized nations. As well, there is increasing consultation by labour groups with business and government in such activities as the Canadian Labour Market and Productivity Centre, the Ministerial Task Force on Program Review, the Royal Commission on the Economic Union and Development Prospects for Canada, and the Ontario Government Task Force on Microelectronics.

Generally, labour relations in Canada are characterized by fidelity to contractual and statutory regulations, with a low incidence of illegal, political, or violent strike activity.

Strikes and Lockouts

Strikes and lockouts are heavily regulated in Canada. Work stoppages during the term of a collective agreement are prohibited, and all disputes that arise during the life of a contract must be settled through a grievance procedure and/or binding arbitration. These legal requirements do not exist in the U.S. Other legislative and administrative provisions assist in the resolution of bargaining disputes: compulsory conciliation (provided by government at no cost) is designed to assist in the negotiation process.

International comparisons of strikes and lockouts are often difficult and inaccurate because of differing social, political and organizational structures. Data collection and statistical methodologies regarding labour disputes vary widely among countries. There are wide variations in the definitions used, as well as differing minimum reguirements for the duration and size of a stoppage. Some countries do not include strikes based on political motives. Work slow downs which are generally not reported are a more common bargaining tactic in some countries, such as Japan. A comparasion of U.S. and Canadian methodologies highlights some of these problems.

Canada-U.S. Comparisons

Canadian data collection is more comprehensive than data collection in the United States. U.S. does not report on strikes involving less than 1,000 workers or those stoppages lasting less than one shift, regardless of the number of workers involved. Thus, if Canada were to report on labour disputes involving 1,000 or more workers, the number of person days lost would drop from a reported 4,443,960 to 2,034,560 in 1983. The percentage of estimated working time lost would fall to approximately 0.09% from the reported figure of 0.19% in 1983. A similar trend is visible when U.S. methodologies are applied to Canadian data on a per thousand employee basis.

PERSON DAYS NOT WORKED DUE TO STRIKES AND LOCKOUTS

PER THOUSAND EMPLOYEES

	National Data		Application of U.S. Methodology to Canadian Data	
	1983	1984	1983	1984
Canada	438	312	208	127
U.S.	194	90	194	90

In general, labour disputes in Canada result in a small amount of time not worked: an average (over the past five years) of less than three-tenths of one percent of total working time per year.

Overall, more than 90 percent of all collective agreements are reached without a work stoppage.

The level of strikes and lockouts in Canada is declining. In 1984, the number of workers involved in work stoppages was down 43 percent from the previous year, and was almost 60 percent below the number in 1979. The aggregate number of person-days not worked in 1984 declined 13 percent from the previous year, and was the lowest since 1977.

WORK STOPPAGES IN SELECTED COUNTRIES, 1979-1983

Number of Disputes

Country	1979	1980	1981	1982	1983
Canada[1]	1,050	1,028	1,048	677	645
Australia[2]	2,042	2,429	2,915	2,060	1,788
France[3]	3,121	2,118	2,442	3,113	3,360
Germany, Fed. Rep.[4]	N/A	N/A	N/A	N/A	N/A
Italy[5]	2,000	2,238	2,204	1,747	1,565
Japan[6]	1,153	1,133	955	944	893
Sweden	207	212	68	46	92
United Kingdom[7]	2,080	1,330	1,338	1,528	1,352
United States[8]	235	187	145	196	81

1	(Canada)	- Excludes disputes in which time lost is less than ten person-days - Excludes workers indirectly affected
2	(Australia)	- Excludes disputes in which time lost is less than ten person days
3	(France)	- Excludes agriculture and public administration - 1984 data based on monthly averages
4	(Germany, FR)	- Includes disputes lasting less than one day only if more than 100 working days lost
5	(Italy)	- Excludes political strikes - Excludes agriculture - Excludes workers indirectly affected by disputes in their own establishment
6	(Japan)	- Excludes stoppages lasting less than four hours - Excludes workers indirectly affected by disputes in their own establishment
7	(United Kingdom)	- Excludes workers in other establishments indirectly affected - Includes disputes lasting less than one day only if more than 100 working days lost - Excludes disputes not connected with terms of employment or conditions of labour
8	(United States)	- Excludes disputes lasting less than a full day or shift - Excludes disputes involving less than 1,000 workers

Source: International Labour Office, Yearbook Labour Statistics, and United States Department of Labor, Bureau of Labor Statistics, Handbook of LaborStatistics.

From: Akivah L. Starkman, The Canadian Labour Relations Climate and Investment Attitudes, Department of Regional Industrial Expansion, (January, 1986).

STRIKES AND LOCKOUTS IN CANADA, 1979-1984

Year	Work Stoppages	Workers Involved in Work Stoppages	Person/ Days Lost	P.D.s Lost as % of Estimated Total Working Time	% of Settlements Following Work Stoppages
1984	717	186,990	3,890,480	0.18	7
1983	645	329,309	4,443,960	0.19	7
1982	677	444,032	5,795,420	0.25	7
1981	1,048	338,548	8,878,490	0.37	15
1980	1,028	441,025	8,975,390	0.38	12
1979	1,050	462,504	7,834,230	0.34	11

Source: Labour Canada, Strikes and Lockouts in Canada

STRIKES AND LOCKOUTS IN CANADA, BY INDUSTRY, 1980-1984

Part A: Number of Strikes and Lockouts

Industry	1980	1981	1982	1983	1984*
Agriculture	1	3	3	2	2
Forestry	8	14	3	5	9
Fishing	2	1	-	1	-
Mines	33	42	8	12	9
Manufacturing	404	423	292	311	345
Construction	69	44	63	24	37
Transportation and Utilites	106	101	67	63	48
Trade	109	90	72	74	100
Finance	20	18	15	17	23
Services	218	221	110	104	110
Public Administration	58	90	43	32	34
Various Industries	-	1	1	-	-
Total	1,028	1,048	677	645	717

* Preliminary Data.

Source: Labour Canada, Strikes and Lockouts in Canada.

Part B: Percentage Share of Total Time Lost Due to Strikes and Lockouts by Industry, 1980-1984.

Industry	1980	1981	1982	1983	1984	Average Annual % 1980-1984
Agriculture	*	0.1	0.1	*	*	*
Forestry	3.8	3.9	0.1	0.3	0.1	1.8
Fishing	4.4	*	*	*	*	0.9
Mines	4.7	6.5	4.4	4.0	1.0	4.1
Manufacturing	35.0	52.2	29.2	31.2	60.5	41.6
Construction	12.3	0.5	38.0	5.5	5.5	12.4
Transportation and Utilites	8.1	17.1	9.8	6.2	14.1	11.1
Trade	2.4	1.7	3.0	5.7	4.9	2.9
Finance	0.5	3.3	0.9	0.2	1.2	1.2
Services	21.0	6.5	7.2	39.8	10.8	17.1
Public Administration	7.8	8.1	4.3	7.0	2.0	5.8

*Less than 0.1 percent
Columns may not total 100 percent due to rounding

Source: Calculations from data in Labour Canada, Strikes and Lockouts in Canada

From: Akivah L. Starkman, The Canadian Labour Relations Climate and Investment Attitudes, Department of Regional Industrial Expansion, (January, 1986).

7. UNION MEMBERSHIP

7. UNION MEMBERSHIP

MEMBERSHIP OF LABOUR ORGANIZATIONS IN SELECTED COUNTRIES

Countries	1961	1968	1974	1981	1982	1983
			(In Thousands)			
Australia	1895	2191	1777 1)	2994	3012	2985
Canada	1447	2010	1591	3487	3617	3563
Japan	8154	10775	12325	12355	12418	12411
Sweden	1922	2301	2898	3455	3505	3555
United Kingdom	9916	10200	11764 2)	12106	11593	11338
United States	16303	10721 3)	22809	n/a	19763	n/a
West Germany	6306	7714	8658	9340	9226	n/a
			Percent of Wage and Salary Earners			
Australia	59.0	50.6	55.3 1)	55.8	57.3	57.8
Canada	29.5	30.2	31.5	35.3	37.8	37.0
Japan	34.3	34.2	33.9	30.6	30.3	29.5
Sweden	n.a.	70.9	80.3	88.8	90.4	91.4
United Kingdom	43.4	45.0	51.6 2)	57.5	54.0	53.5
United States	30.2	30.6 3)	29.4	n.a.	22.1	n.a.
West Germany	30.9	37.3	40.0	41.9	42.2	n.a.

From: E.D. Wood and Pradeep Kumar, Current Industrial Relations Scene in Canada, (Kingston: Industrial Relations Centre, Queen's University, 1985), p. 243.

NOTE: International comparisons should be approached with caution in view of the different methods used in each country to compile trade union membership.

1) In 1974 Australia changed the method in which union membership was calculated. The 1974 figure which is strictly comparable to those before the change is 2,762,000, 55 percent of wage and salary earners.

2) Due to the exclusion, beginning in 1975, of thirty-one organizations previously regarded as trade unions, figures after 1975 are not strictly comparable with those before.

3) Beginning in 1968 the U.S. figures incude the membership of employee associations. The 1968 figure strictly comparable with the figures of preceding years is 18,916,000 - 27.9 percent of wage and salary earners.

Sources: Union Membership: Australia Commonwealth Bureau of Census and Statistics, Official Yearbook of the Commonwealth of Australia; Canada, Labour Canada, Directory of Labour Organizations in Canada; Japan, Statistics and Information Department, Yearbook of Labour Statistics; Sweden, National Bureau of Statistics, Statistical Abstract of Sweden; United Kingdom, Department of Employment, Employment Gazette; United States, Bureau of Labour Statistics, Directory of National Unions and Employee Associations; West Germany, Federal Republic of Germany, Statistiches Jahrbuch. Wage and Salary Earners: O.E.C.D., Labour Force Statistics.

UNION MEMBERSHIP IN CANADA, BY INDUSTRY

Part A: Percentage Distribution by Industry:

Industry	1971	1975	1982
Forestry	1.0	1.0	0.7
Mining	2.0	2.0	1.6
Manufacturing	32.6	30.7	26.2
Construction	10.4	10.7	8.9
Transportation, Communication and Other Utilities	14.9	14.7	14.6
Trade	4.1	4.4	4.8
Finance	0.1	0.5	0.5
Services	17.6	17.9	24.8
Public Administration	14.9	16.5	16.7

Part B: As a Percent of Non-Agricultural Paid Workers, By Industry

Industry	1971	1975	1982
Forestry	41.4	45.5	37.7
Mining	37.1	41.8	31.7
Manufacturing	47.3	47.8	45.6
Construction	63.1	65.2	65.9
Transportation, Communication and Other Utilities	51.8	52.5	54.0
Trade	8.7	8.8	9.4
Finance	0.9	3.0	3.1
Services	21.7	21.2	25.6
Public Administration	74.3	76.3	78.7

From: E.D. Wood and Pradeep Kumar, Current Industrial Relations Scene in Canada, (Kingston: Industrial Relations Centre, Queen's University, 1985), pp. 240-1.

Source: Statistics Canada, Corporations and Labour Returns Act, Part II, and Estimates of Employees by Province and Industry

8. KEY CANADA-U.S. COMPARISONS

8. KEY CANADA-U.S. COMPARISONS

GROSS NATIONAL PRODUCT, CANADA & U.S.

		Canada		U.S.	
Year	Quarter	$Cdn. B	Index	$U.S. B	Index
1982	1	352.2	100.0	3026.0	100.0
	2	345.7	98.2	3061.2	101.2
	3	360.7	102.4	3080.1	101.8
	4	365.6	103.8	3109.6	102.8
1983	1	374.0	106.2	3173.8	104.9
	2	384.8	109.3	3267.0	108.0
	3	398.1	113.0	3346.6	110.6
	4	402.4	114.3	3431.7	113.4
1984	1	409.8	116.4	3553.3	117.4
	2	418.5	118.8	3644.7	120.4
	3	424.3	120.5	3694.6	122.1
	4	430.8	122.3	3758.7	124.2
1985	1	440.9	125.2	3810.6	125.9
	2	449.0	127.5	3853.1	127.3
	3	458.3	120.1	3915.9	129.4

Source: Bank of Canada Review; U.S. Department of Commerce, Survey of Current Business.

EMPLOYMENT*, CANADA & U.S.

		Canada		U.S.	
Year	Quarter	(000)	Index	(000)	Index
1982	1	10289	100.0	90438	100.0
	2	10234	98.5	90081	99.6
	3	10082	97.0	89316	98.8
	4	10035	97.6	88796	98.2
1983	1	10096	97.2	88815	98.2
	2	10232	98.5	89426	98.9
	3	10327	99.4	90403	100.0
	4	10272	99.8	91686	101.4
1984	1	10403	100.1	92765	102.6
	2	10457	100.7	93729	103.6
	3	10579	101.8	94915	105.0
	4	10653	102.5	95849	106.0
1985	1	10654	102.6	96640	106.9
	2	10799	103.9	97338	107.6
	3	10840	104.3	97933	108.3

Source: Bank of Canada Review: U.S. Department of Commerce, Survey of Current Business.

* Quarterly averages of employment in non-agricultural industries.

RECENT CANADA - U. S. PERFORMANCE

Percent change, quarter to quarter

				National Accounts					
		Employment		Real Output		Pre-Tax Profits		Consumer Prices	
Year	Quarter	Canada	U.S.	Canada	U.S.	Canada	U.S.	Canada	U.S.
1984	I	1.0	2.4	8.7	0.0	1.3	1.3	0.3	1.2
	II	0.7	1.7	0.8	9.1	0.8	1.1	0.5	1.0
	III	1.6	0.4	0.3	8.6	0.7	1.2	1.2	1.3
	IV	0.8	1.0	4.3	1.7	0.9	0.3	0.7	1.0
1985	I	0.9	0.1	2.7	-2.8	1.3	1.1	0.0	0.8
	II	1.0	0.5	-0.4	-0.6	1.2	1.1	1.4	0.7
	III	1.6	1.1	0.0	5.3	0.6	0.7	0.4	0.6

Source: Bank of Canada Review; U.S. Department of Commerce, Survey of Current Business.

CORPORATE PROFITS*, CANADA & U.S.

First quarter 1982 = 100

		Canada		U.S.	
Year	Quarter	$Cdn. B	Index	$U.S. B	Index
1982	1	21.8	100.0	167.6	100.0
	2	20.1	92.2	169.8	101.2
	3	19.9	91.3	168.9	100.8
	4	22.7	104.1	155.8	93.0
1983	1	28.3	129.8	161.7	96.5
	2	31.6	145.0	198.2	118.3
	3	34.9	160.1	227.4	135.7
	4	35.8	164.2	225.5	134.5
1984	1	38.9	178.4	225.5	134.5
	2	39.2	179.8	246.0	146.8
	3	39.3	180.3	224.8	134.1
	4	41.0	188.1	228.7	136.5
1985	1	42.1	193.1	222.3	132.6
	2	40.4	185.3	221.0	131.9
	3	40.4	185.3	232.8	138.9

* before taxes

Source: Bank of Canada Review: U.S. Department of Commerce, Survey of Current Business.

REAL GROSS NATIONAL PRODUCT TRENDS

Country	1982	1983	1984	1985*
	(% change from previous period)			
Canada	-4.4	3.3	5.0	4.5
United States	-2.1	3.7	6.8	2.6
United Kingdom	1.9	3.2	2.6	3.25
F. R. of Germany	-1.0	1.5	2.7	2.25
Japan	3.3	3.4	5.8	5.0

* Estimate

Source: OECD, Economic Outlook, December 1985.

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APPENDIX I - Industry Information

MARKETS

1. CANADA: THE REALITY

To much of the world, Canada presents an image of a rugged, arctic land, populated by fishermen and farmers. But natural resources, while important, now play an increasingly smaller part in Canada's industrial economy. Canada's diversified export-oriented economic base has transformed the country into a modern trading nation.

In 1984, exports accounted for 26.2 percent of Canada's gross national product. By comparison, exports account for only 5.9 percent and 13.8 percent of U.S. and Japanese gross national products respectively. Canada's major exports are not unprocessed raw materials, but manufactured goods, primarily transportation equipment. Resource-based products, such as wood and paper, ores and agricultural products, continue to contribute to the overall economy, but it is manufactured goods and services that are experiencing the fastest growth and creating jobs in Canada. This section dispels the more widespread myths about the Canadian economy and provides information on the Canadian and North American markets.

1.1 The Facts

(a) Population

Canada has a population of 25.3 million (April 1985 estimate). From 1980 to 1985, the rate of population increase averaged 1.1 percent. Coincidentally, the rate of increase rose as one moved westward, ranging from 0.7 and 0.6 percent per year in the Atlantic provinces and Quebec respectively, to 1.8 percent in British Columbia.

The population is distributed unevenly across the country, with 36 percent in Ontario, 26 percent in Quebec, 18 percent on the Prairies, 11 percent in B.C. and 9 percent in the Atlantic area. Less than one-half of 1 percent resides in the two Territories.

With a population of 25.3 million and an area of 10 million square kilometers (3.6 million square miles), Canada appears to be vastly underpopulated. However, more than 75 percent of the population reside in urban areas located below the fiftieth parallel (see Figure 1). Within this narrow band, Canada is principally an urban society with a moderate population density. Ottawa, the capital of Canada lies further south than London, Paris, Bern, Bonn, Prague, Vienna, Budapest and Seattle. The vast majority of Canadians live further south than almost all of the inhabitants of the United Kingdom.

Canadian Population Distribution And Proximity To Major Urban Markets Of North America

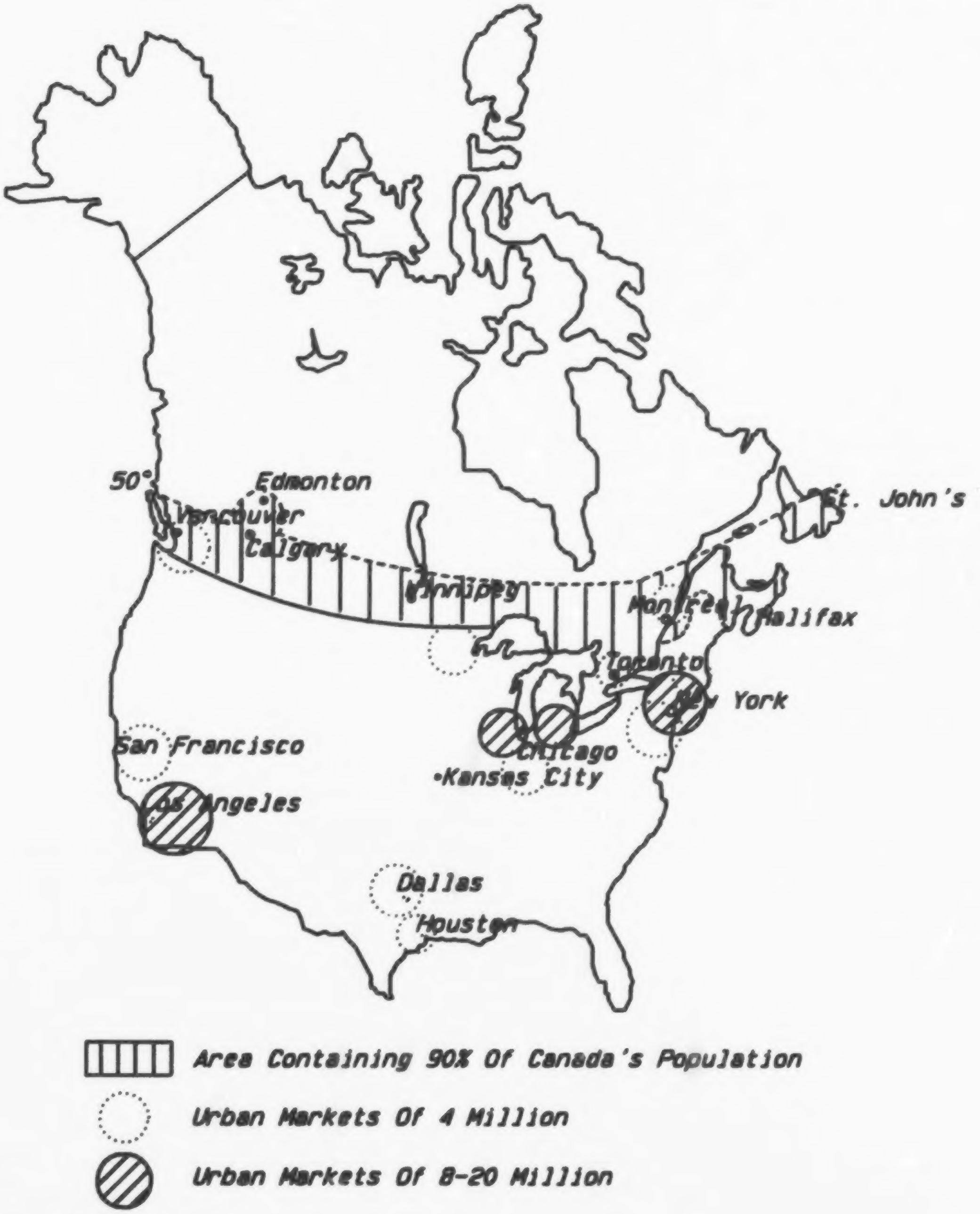

50°
Edmonton
Vancouver
Calgary
Winnipeg
St. John's
Montreal
Halifax
Toronto
New York
San Francisco
Chicago
Kansas City
Los Angeles
Dallas
Houston
Area Containing 90% Of Canada's Population
Urban Markets Of 4 Million
Urban Markets Of 8-20 Million

TABLE 1

POPULATION - CANADA AND REGIONS

	1980* (thousand)	1985*	Average Annual Growth Rate (%)	% of 1985 Total (%)
Canada	23912	25263	1.1	100.0
Atlantic	2225	2301	0.7	9.1
Quebec	6360	6562	0.6	26.0
Ontario	8540	9024	1.1	35.7
Prairies	4084	4419	1.6	17.5
British Columbia	2636	2883	1.8	11.4
Yukon and NWT	67	74	2.0	0.3

*At start of period

Source: Bank of Canada Review.

TABLE 2

CIVILIAN LABOUR FORCE - CANADA AND REGIONS

Region	Average Annual Labour Force			Growth		Average Annual Employed			Growth	
	1975	1984	1985	75-84	84-85	1975	1984	1985	75-84	84-85
Atlantic	787	955	977	2.2	2.3	710	810	822	1.5	1.5
Quebec	2647	3123	3181	1.9	1.9	2934	2722	2804	1.3	3.0
Ontario	3818	4666	4787	2.3	2.6	3576	4243	4402	1.9	3.7
Prairies	1635	2246	2263	3.6	0.8	1570	2025	2055	2.9	1.5
B.C.	1087	1410	1431	2.9	1.5	995	1202	1228	2.1	2.2
Canada	9974	12399	12639	2.5	1.9	9284	11000	11311	1.9	2.8

Source: Bank of Canada Review, Statistics Canada

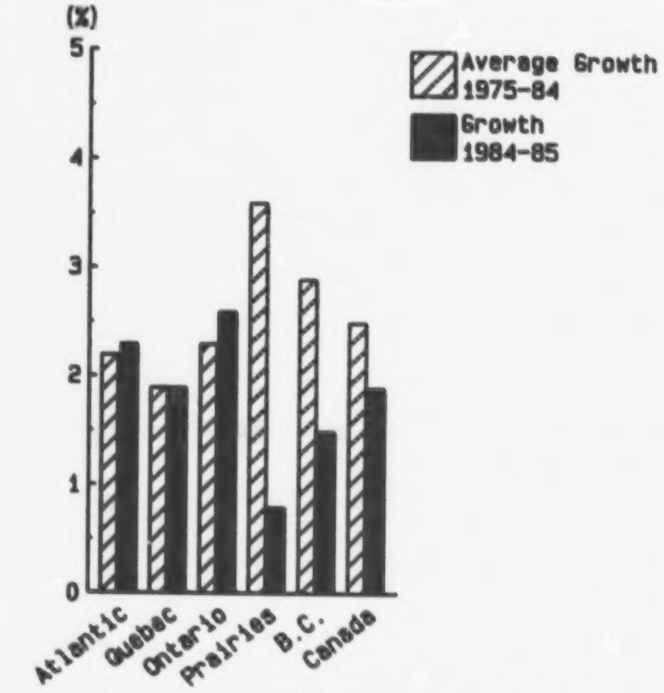
(b) Labour Force

The labour force averaged 12.6 million in 1985, up 1.9 percent from 1984. The largest proportion, 37.9 percent, resided in Ontario, followed by Quebec with 25.2 percent, the Prairies with 17.9 percent, British Columbia with 11.3 percent and the Atlantic Provinces with 7.7 percent. Unemployment averaged 10.5 percent (1.3 million) in Canada in 1985, down from 11.3 percent (1.4 million) in 1984. The Atlantic provinces had the highest rate (15.9 percent) and Ontario the lowest (8.0 percent). Quebec and the Prairies had unemployment rates of 11.8 percent and 9.2 percent respectively.

(c) Job Creation

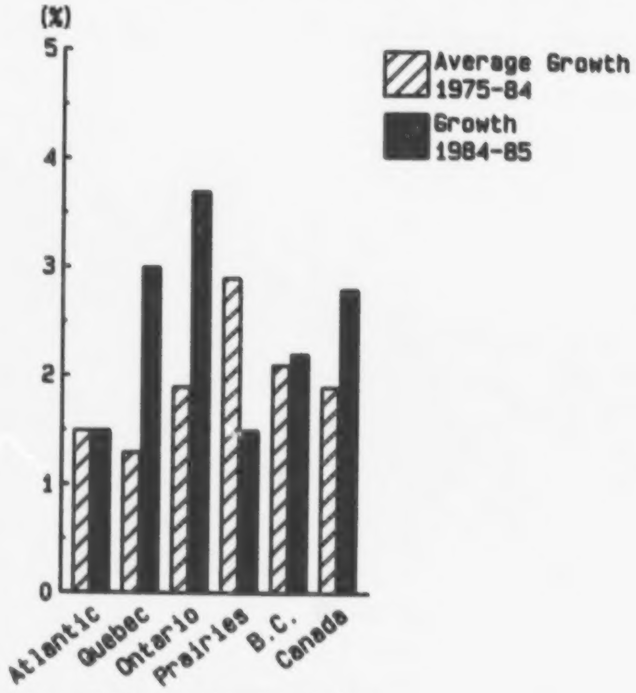
Over the 1960 to 1981 period, the number of persons employed in Canada increased at an annual average rate of 3 percent. This record was the best in the western industrial world, and 50 percent better than the record of the U.S.A., which created employment at an annual average rate of 2 percent over the same period.

Growth in Labor Force 1975–84 and 1984–85



Source: Bank of Canada Review,
Statistics Canada.

Growth in Employment 1975–84 and 1984–85



Source: Bank of Canada Review,
Statistics Canada.

From 1970 to 1984, annual employment growth averaged 2.4 percent, second in the OECD membership. During this period, 3.4 million net jobs were created. From 1973 to 1984, Canada had the best record of job creation in the OECD, resulting in 28 percent more jobs compared to 25 percent in the U.S., 12 percent in Japan and zero percent in West Germany.

At the end of 1985, the absolute number of employed persons in Canada was at an all-time high; 311,000 jobs have been created in the 1984 to 1985 period. From the low point of the recession in 1982 to the high point of recovery in 1985, a total of 365,000 jobs were created. Forecasters predict that Canadian employment will continue to grow by about 2 percent annually until 1990.

(d) Standard of Living and Income

Canada's overall standard of living ranks among the highest in the world. In terms of wealth, Canada had a higher gross national product per capita in 1984 than Japan, Germany, France, the U.K. and Italy. With a comparatively small population, Canada's gross national product ranked seventh in the world in size, ahead of many, more populous countries. Canadians are a mobile people. With fair distances between major centres, 77 percent of Canadian households own automobiles. This compares with the U.S. where 90 percent of households own automobiles. Other western industrial countries such as Japan, France, Germany, and the U.K. have household car ownership rates of between 60 percent and 70 percent. Canada ranks very high in the percentage of households owning other durable goods, such as refrigerators (99 percent), washing machines (77 percent), telephones (99 percent), televisions (98 percent), radios (99 percent) and video recorders (12.5 percent).

Some 60 percent of Canadian families own their homes, the quality and size of which is among the highest in the world.

(e) Income

Total personal income rose by 7.3 percent in 1985, to an estimated $388.7 billion. Wages, salaries and supplementary labour income made up 63 percent of the total, while transfers from government accounted for 15 percent. Interest, dividends, and miscellaneous investment income comprised 14 percent. Average per capita income rose by 7 percent in 1985, to $15,300.

(f) Climate

The Canadian climate is varied, ranging from a temperate climate on the west coast (cool winters and mild summers) to a continental-type climate on the Prairies (cold winters and hot summers). Most populated areas of Canada experience the same climate as that encountered in the northern U.S. Table 3 compares average temperatures in major Canadian population centres with other major urban centres in the U.S. and Europe.

TABLE 3

AVERAGE TEMPERATURES

	JANUARY	JULY
Halifax	-3°c (27°F)	18°c (64°F)
New York	-1°c (30°F)	23°c (73°F)
Toronto	-5°c (23°F)	20°c (68°F)
Chicago	-4°c (25°F)	23°c (73°F)
Vancouver	+2°c (36°F)	17°c (63°F)
London, England	+4°c (39°F)	16°c (61°F)
Frankfurt	+1°c (34°F)	20°c (68°F)
Montreal	-9°c (16°F)	22°c (71°F)
Paris	+3°c (37°F)	19°c (66°F)
Rome	+8°c (47°F)	24°c (76°F)

(g) Language

Canada has two offical languages, English and French. According to the 1981 census, 61 percent of Canadians spoke English as their mother tongue and 26 percent spoke French. A growing number of Canadians speak both languages. The remaining 13 percent, while they may use English or French as their working language, have another language as their mother tongue. The provinces of New Brunswick and Manitoba are officially bilingual. English is the most widely used language in all provinces, except Quebec.

In language, customs, income and climate, the average Canadian is remarkably similar to his northern U.S. neighbour. The similarities are so extensive that it is sometimes difficult to separate market characteristics north and south of the Canada-U.S. border. Together, the U.S. and Canada comprise what is commonly known as the North American market.

1.2 The Canadian Market

1.2.1 Atlantic Canada

With a population of 2.3 million and a gross domestic product of $24.1 billion in 1985, the Atlantic region contributed close to 6 percent of the nation's gross domestic product. The regional economy is based upon the plentiful natural resources of the forest, the sea and abundant mineral deposits. The economy is a diversified one in which the value of factory shipments outweighs the total value of farm cash receipts, mineral production, and fish landings. Exports from the region, at $3.8 billion, accounted for more than 16 percent of GDP, of which $2.3 billion, or 60 percent of total exports, went to the U.S., mainly the Atlantic seaboard states. Wood and paper, fish products, energy and transportation equipment were the major exports. Given its East Coast location, excellent natural harbours and the well-developed transportation infrastructure of airlines, railroads and highways, Atlantic Canada has ready access to the total Atlantic region of North America, one of the most industrialized of world markets, with a population in excess of 46 million affluent consumers.

Major Centres

Halifax, Nova Scotia (population 278,000) is the largest city and leading industrial area in Atlantic Canada. Its major industries include oil refineries, shipbuilding, metal works, breweries and fish processing. Halifax has excellent transportation links to North American and world markets. It is the fifth largest port in Canada and is open to traffic year round. Other transportation facilities include major freight rail lines and an international airport.

St. John's, Newfoundland (population 143,990) is the largest city in Newfoundland and houses approximately 25 percent of the total population. St. John's, which ranks as Canada's 10th largest port, has an excellent harbour which provides maritime traffic with access to Europe, the Atlantic U.S. and the rest of Canada.

Saint John, New Brunswick (population 80,521) is another major industrial centre. Major industries include the $2.7 billion Point Lepreau Nuclear Power Plant, the Saint John Shipbuilding and Drydock Company, potash mines of Denison Mines and the Potash Company of America, the Mount Pleasant Tungsten and Molybdenum Mine, Moosehead Breweries, Flake Board Company Limited and Connor's Bros. Ltd. fish processing plant. In addition to its proximity to the numerous population centres of the Northeastern U.S., Saint John has the sixth largest port in Canada, and offers year-round, direct access to major world markets. Saint John also has excellent rail and highway facilities which provide access to the rest of Canada and the U.S.

1.2.2 Central Canada

Central Canada, comprising the provinces of Ontario and Quebec, has a population of some 15 million and a gross domestic product of $252.1 billion, or approximately 60 percent of Canada's total 1985 gross domestic product. It is both the most urban and most industrialized region of Canada. Within the geographic triangle of Quebec City, Sault St. Marie and Windsor, live 60 percent of Canada's total population. Approximately 24 percent of its GDP is exported, with over 80 percent of total exports destined for the U.S. market, primarily the Atlantic and Midwest regions. Transportation equipment such as automobiles, railway cars, autoparts, wood and paper products, and energy are the major exports. The most populated area of Central Canada is an industrialized peninsula jutting into the Northern U.S., between the heavily populated Atlantic and Midwest Regions. Most of central Canada's cities have better proximity to the industrial heartland of the U.S. than major U.S. population centres to the south and west. These Canadian locations are also better integrated into the affluent and densely populated northeastern U.S. in terms of culture, time zones and communications.

Major Centres

Quebec City, Quebec (population of 576,000) is the capital of the Province of Quebec, and the oldest city in North America. In addition to being the centre of government and a major tourist centre, it houses a wide range of industries including food processing, leather goods manufacturing, and textiles, apparel, wood products, pulp and paper, printing and publishing, non-ferrous metal and chemical products. Quebec City is the seat of the University of Quebec, comprised of 11 campuses around the province. Quebec harbour is one of Canada's busiest seaports, able to accommodate the largest ocean-going vessels year-round. In addition, excellent railroad, road and airline facilities provide easy access to the rest of Canada and the U.S.

Montreal, Quebec (population 2,828,000) is Canada's second-largest industrial, financial and commercial centre. It houses the Montreal Stock Exchange. It is also the world's second-largest French-speaking city, a major tourist and cultural centre, with extensive convention facilities. Its principal industries include food processing, clothing and high fashion, paper and paper products, aircraft and aircraft engines, and petroleum refining. Montreal is a location for high technology industries producing office automation equipment, electronics and communication products which complement its established manufacturers of avionics, defense products and aircraft parts. Montreal's high calibre universities, colleges, and research institutes are closely associated with industry. The Port of Montreal, open year round, is an integral part of the St. Lawrence Seaway (which provides marine access to the major industrial centres of central Canada and the Midwest region of the U.S.). It is the largest Atlantic-oriented port in Canada, third largest on the North American east coast in container traffic. Montreal is served by two international airports, and has excellent road and rail facilities which provide access to the rest of Canada and the U.S.

Ottawa, Ontario (population 718,000) is Canada's capital. It is a high technology, electronics and telecommunication focal point with over 200 high-tech manufacturers, including Northern Telecom, Mitel Corp. and Gandalf. Ottawa is a major tourist centre and has excellent convention facilities. Ottawa has an international airport, and excellent railroad and highway links to major North American markets.

Toronto, Ontario (population 3,000,000) is Canada's largest city and the capital of Ontario. It is the country's leading commercial, industrial and financial centre, and houses the Toronto Stock Exchange and the largest number of corporate head offices in the country. It is the hub of an ever-expanding megalopolis known as the "Golden Horseshoe", extending around the western shore of Lake Ontario from Niagara to Oshawa. Its principal industries include manufacturers of automobiles, aircraft, machinery, electronics, communications equipment, electrical goods, sheet metal products, printing and publishing, meat processing, food and beverage production, clothing and rubber goods. The city's universities and colleges have a continuing research affinity with industry.

Toronto is a major tourist centre and has extensive convention facilities. Excellent transportation facilities, including an international airport, a STOL-port and extensive rail facilities, provide access to all North American markets. The Port of Toronto is part of the St. Lawrence Seaway and is open to international marine traffic from May to October.

Hamilton, Ontario (population 542,000) is a major industrial centre and the steel capital of Canada. Other major industries include heavy machinery, fabricated metals and other heavy industry. It has excellent transportation facilities, including major railways and a port on the Great Lakes shipping system.

1.2.3 Prairie Canada

Prairie Canada, the provinces of Manitoba, Saskatchewan and Alberta, has a population of 4.4 million and had a gross domestic product of $89billion in 1985, or approximately 21 percent of the Canada's GDP. The region is endowed with large reserves of mineral wealth (including oil, gas, coal, potash and uranium) and vast fertile plains which are ideal for growing grain and oilseed crops. The gross domestic product of Alberta, driven by its established oil and gas industry, and to a lesser extent, its petrochemicals, food processing, steel and clothing manufacturing industries, exceeds the combined GDPs of Manitoba and Saskatchewan, which are more dependent on manufacturing and agriculture, respectively. Saskatchewan, with rich potash, uranium, oil and gas reserves yet to be fully exploited, is in the process of diversifying its economy and continues to lessen its reliance on its traditional agricultural base. Manitoba, with a fairly strong manufacturing base that includes industries such as food and beverages, chemicals, primary metal manufacturing, metals processing, printing and publishing, farm machinery, textiles and clothing, is proceeding with the construction of a large hydroelectric facility that will provide electrical energy for export to the U.S. and for domestic industrial growth. Almost 90 percent of the region's exports, which include energy, fuels, chemicals and wood and paper, are destined for the U.S. The region is also a major producer of livestock, grains and seed oils, much of which is destined for export markets internationally.

Major Centres

Winnipeg, Manitoba (population 585,000) is the provincial capital. Its industrial base includes a wide range of manufacturing industries, as well as food processing and distributing businesses. Winnipeg has excellent transportation links to the rest of Canada and the U.S. via its well-integrated network of highways, railroad facilities and an international airport.

Regina, Saskatchewan (population 173,000) is the provincial capital, situated midway between Calgary, Alberta and Winnipeg, Manitoba on the TransCanada Highway. Agriculture plays a major role in Regina's economy, but steel, petroleum refining and potash are other major industries within the area. Regina is also a key distribution centre serving the Prairie provinces, Northwest Territories and the north-central United States. It has excellent transportation facilities, with airline, road and rail services available to all major cities across Canada and the U.S.

Saskatoon, Saskatchewan (population 171,000) is one of the fastest growing areas in Canada, and is a major agriculture center. Other important industries include livestock and meat processing, oil, gas, uranium and coal mining. More than 80% of high-technology companies have concentrated around Saskatoon, including manufacturers, R&D firms and consultancy/support services. Saskatoon is well-served by the major railway systems, airlines and highways.

Edmonton, Alberta (population 657,000) is the provincial capital and the second-largest oil refining centre in Canada. It is supplied by 12,000 producing wells and serves two major oil-sands plants to the north. In addition to oil refining, its principal industries include petrochemicals (including plastics, fertilizers, and man-made fibres), steel tube mills, and meat processing. It has excellent transportation facilities, including an international airport, a second airport in the heart of the city, and a network of highways and railroads.

Calgary, Alberta (population 593,000) is Canada's energy-resource capital. Major industries include oil, gas and related energy industry consultants, service and supply companies, data processing, transportation, meat packing and fertilizer production. It is linked to major North American markets by rail, highways, and an international airport.

1.2.4 Pacific and Northern Canada

The Pacific and northern region includes British Columbia, the Yukon and Northwest Territories. This area had a gross domestic product of 50.7 billion in 1985, or approximatly 12.2 percent of the nation's gross domestic product. British Columbia, with 98 percent of the total regional population of 2.9 million, accounts for most of the region's economic activity. Its major industries include forestry, mining, tourism, agriculture, fishing, manufacturing, transportation and electric power development. B.C. forests, which include 60 percent of the nation's softwood timber and 70 percent of the nation's sawtimber, are a vital part of the economy, dependent on the growth of world markets for pulp and paper, newsprint and construction lumber. B.C.'s mineral wealth includes large reserves of copper, molybdenum, silver and gold, which together account for almost 40 percent of the value of all minerals produced in the region. Other minerals produced include lead, zinc, natural gas and coal. Manufacturing is based on B.C.'s natural resources and is heavily oriented to forest products, refined non-ferrous metals and processed fish products. Manufactured wood products and the pulp and paper industry account for about 50 percent of the value of factory shipments. Fishing, especially for salmon, remains an important industry. However, increasingly, the economy is diversifying away from these resource-based industries to new manufacturing industries such as electronic products which currently employ some 6,000 people, and service industries such as banking and tourism. Transportation is also a key industry. B.C.'s major ports serve as vital transportation links to North American west coast markets, as well as the expanding markets of the Pacific Rim countries. B.C. is also well served by domestic railroads to the Canadian hinterland and U.S. railroads on the American west coast. Exports account for over 26 percent of B.C.'s gross domestic product, with more than 36 percent of total exports destined for U.S. markets. Major exports include wood, paper and energy.

Major Centres

Vancouver, British Columbia (population 1,268,000) is the major marine cargo port of Canada. Among products handled are grain, timber, coal, mineral ore, chemicals, and manufactured goods. Vancouver has a major international airport, and is the western terminus of Canada's two national railways. The TransCanada Highway connects to eastern Canada and interior B.C., as well as major north-south routes.

Whitehorse, Yukon (population 16,000) is the capital of the Yukon Territory. The city is a major communications centre for the surrounding area. Leading industries are mining, oil and gas exploration, refining, hydro-electric power, forestry and small-scale agriculture. Whitehorse is connected by air and highway to northern Pacific and prairie centres, including Edmonton, Alberta and Fairbanks, Alaska.

Yellowknife, Northwest Territories (population 10,500) is the capital of the Northwest Territories. The city and its surrounding area are rich in raw materials such as gold and other minerals, fish, fur and gravel. Yellowknife is also a base for numerous international companies involved in oil and gas exploration activities in the Arctic. The city is served year-round by regional air carriers.

1.3 Overview of Major Industrial Sectors

1.3.1 Agriculture

Despite averaging real growth of 1.7 percent per year from 1975 to 1985, the agricultural sector's share of real domestic product has decreased from 2.8 percent to 2.5 percent in 1985, and is expected to continue to decrease as a proportion of total domestic output.

Ontario, the province with the largest total farm income, is the main producer of corn (maize), fruits, vegetables and tobacco. Oats, barley, wheat and oilseeds are important crops of the Prairie (western) provinces. Wheat accounts for 50 percent of total grain sales, 75 percent of which is exported.

Cattle, hog and dairy product sales are expected to show moderate real growth. Prairie grain production has the capacity to expand, but is heavily dependent upon world export markets.

1.3.2 Fisheries

Even though the fishing sector represents less than 1/10 of 1 percent of Canada's real domestic product, Canada is the world's largest exporter of fish. The industry supports more than 78,000 fishermen. Primary catches are cod, flounder, scallops and lobster on the Atlantic coast, herring and salmon on the Pacific coast; and whitefish and perch in the inland waters. Increasing world population and the increasing relative costs of other protein sources should sustain or increase demand for Canadian fish in world markets.

1.3.3 Forestry and Forest Products

Logging accounted for approximately 7/10ths of 1percent of Canada's real domestic product in 1985. Of the 4.5million square kilometers of Canadian forest, more than 80percent is owned and leased to private companies by the government (mainly provincial) and 57percent is classed as productive.

Forest products are Canada's largest net earner of foreign exchange. Canada exports some 85percent of its newsprint shipments and some 35percent of its pulp shipments, primarily to OECD countries, which take approximately 90percent of Canadian forest product exports.

1.3.4 Mining and Energy

Mines, quarries and oil wells contributed 2.7percent of Canada's real domestic product in 1985. The industry consists of three main segments: metal mining (26.2percent), non-metal mining (6.9percent), and mineral fuel production (57.8percent).

Canada is the world's leading producer of nickel and zinc, and the world's largest exporter of minerals overall. Other major ores mined in Canada include copper, lead, iron, uranium, gold and silver.

Non-metal mining is mainly composed of asbestos, potash, clay, cement, limestone and gravel production. Canada is the world's leading producer of both asbestos and potash.

Reserves of mineral fuels such as oil, natural gas, coal and uranium are abundant. The province of Alberta accounts for the majority of the nation's crude oil output. However, recent major discoveries off the east coast point to potential significant growth in Atlantic Canada.

Natural gas sales have been dependent upon the domestic and U.S. markets. The Canadian government and several provincial governments are actively encouraging the substitution of natural gas for oil. Consequently, gas pipeline distribution systems have undergone rapid expansion, especially in central Canada. The number of residential customers using natural gas increased by more than 5percent during the 1981-82 period. The use of liquid natural gas (LNG) tankers for gas exports has created potential new export markets for Canadian gas in Japan and Asia. The recent deregulation of the industry should also encourage the growth of export markets in the U.S.

The increase in coal-fired electric generating plants in Alberta, Saskatchewan and Nova Scotia should increase the demand for, and the production of, coal. Coal exports, mostly to Japan, have demonstrated significant growth, which is expected to continue.

The sale of uranium and other nuclear products is regulated by the Atomic Energy Control Board (AECB) to ensure non-military usage. Canada is a world leader in nuclear technology and has developed the CANDU nuclear reactor. Most uranium and other processed nuclear products are exported. The abundance of cheap hydro-electricity in British Columbia, Manitoba and Quebec has reduced domestic demand for nuclear power generation.

1.3.5 Manufacturing

Manufacturing accounted for 21.2 percent of Canada's real domestic product in 1985. The manufacture of machinery, chemicals, transportation equipment, and high technology communications and data processing equipment has shown the greatest potential for growth in this sector.

The advanced technology sectors such as factory automation systems, avionics and aerospace, videotext systems, word processors, telephone and data switching devices, laser technology, fibre optics and microprocessors have experienced rapid growth in recent years. Some of the more prominent participants are Northern Telecom and Mitel Corp., major manufacturers of telecommunication products including PBX's; AES Ltd. and Micom Inc., manufacturers of word processors; and Gandalf Technologies Inc. and Develcon, manufacturers of data switches.

The dominant feature of the Canadian plastic and chemical industries during this decade is the expansion of the natural gas petrochemical industry in Alberta. New export markets are being developed in the U.S., Japan and Europe for ethylene and derived resins, polymers and plastics.

Growth in the transportation equipment sector has been strong. In 1984, transportation equipment accounted for over 37 percent of Canada's exports to the U.S.A. Motor vehicle manufacturers, located mainly in central Canada, account for 75 percent of this sector's output. The expansion of rapid transit systems throughout North America is providing increased sales for manufacturers of urban transit systems such as Bombardier, Hawker-Siddeley and the Urban Transit Development Corp. The two major freight railways are replacing aging rolling stock, and VIA Rail is replacing its passenger rail equipment. This has increased the production of railroad rolling stock. In addition, major U.S. contracts for amphibious military vehicles have been secured.

1.3.6 Detailed Manufacturing and Mining Sectoral Information

Data to 1984 on 24 major industrial sectors, with comparisons to total manufacturing or mining, is shown in Appendix I. The data covers the size of the sector in terms of shipments, employment, regional concentration and domestic and export markets. Also included is information on current investment intentions, profitability, the major firms and the degree of non-Canadian ownership in the sector. Other useful information is provided on the role of government, on industrial relations, research and development activities, and current productivity trends in the sector.

1.3.7 Transportation

Transportation, storage, communications and utilities accounted for 14.4 percent of real domestic product in 1985. As a result of Canada's size and its dependence on trade, transportation's share of the national output is quite large and equivalent to that of the agricultural and mining sectors combined. Major modes of transportation in order of revenues are: railroads, trucking, pipelines, airlines and marine shipments.

While there are a number of railroads operating in Canada, the privately owned CP Rail (Canadian Pacific Railway) and the government-owned CN Rail (Canadian National Railway) generate the bulk of the sector's revenues. The 95,000 kilometer (59,000 mile) railway system is an efficient means of bulk transportation and is fully integrated with the rail networks of the U.S.

Marine transportation in Canada is served by 25 major deep-water ports and more than 700 smaller ports. The St. Lawrence Seaway allows marine traffic to penetrate and serve central Canada, the midwest and the prairie regions of the U.S. The Port of Vancouver is Canada's largest in terms of tonnage of international trade goods, with 49.7 million tonnes (54.7 million tons), or 52 percent of Canada's total shipping tonnage. This traffic is growing rapidly as trade in bulk commodities to Pacific Rim countries increases. Montreal is the most important port with access to the Atlantic and is the third largest container port on the North American Atlantic coast.

The recently deregulated trucking industry, which employed some 91,000 persons in 1981, benefits from a highly developed network of highways that is fully integrated with the U.S. Currently, there are 135,000 trucks for hire, which travel the 271,417 kilometers (168,687 miles) of Canadian roadways. The industry is expected to experience significant growth during the coming decade as Canadian manufacturers seek to serve new markets south of the border.

Canada's 60 major airports handle regular traffic from 35 foreign airlines. Domestic carriers fly to all the principal cities of Canada and the world. The three main Canadian carriers, which generate some 64 percent of the industry's revenues, have both domestic and international operations. More remote regions (north of 60 degrees) are serviced by commercial carriers, utilizing more than 250 small airports.

A network of pipelines transports oil and natural gas to the major North American markets. Most current pipeline investment is concentrated in the far North and the Western provinces. Planned extensions to eastern Canada for natural gas pipelines will connect the country from coast to coast. There are also plans to construct gas pipelines to specialized liquid natural gas (LNG) ports on the British Columbia coast to serve export markets in Pacific Rim countries.

1.3.8 Communications

The communications industry consists of four sectors: telephone (75 percent), radio and television broadcasting (14 percent), cable television (6.5 percent) and telegraph and satellite (6.5 percent). The industry is dominated by relatively few large companies and is extremely capital intensive. Bell Canada supplies telephone service to over 61 percent of the Canadian population, located in Ontario, Quebec and the Northwest Territories.

Markets

Canada is a recognized leader in the development of communications technology and has one of the world's most sophisticated communications networks, including fibre optic cable, cellular mobile telephones and satellites. Currently, there are 14 million telephones and a direct dialing service across Canada and to 49 other countries. Technological leaders, such as Bell Northern Research (Bell Canada), Mitel Corp. and Trillium Telephones, develop and incorporate the latest technology into their products. In addition, there are 513 radio stations and 97 television stations, supplemented by 900 and 780 radio and television rebroadcasting stations, respectively.

As a result of the trend toward automated offices with telephone-linked word processors and workstations, the volume of long distance telephone calls is rising by 10 percent per year. Telephone companies are expected to experience real annual growth throughout the decade.

Overall, the communications industry should realize substantial growth for the remainder of the decade.

1.3.9 Utilities

Canada has abundant hydro-electric capacity. Two of the largest hydro- electric complexes in the world, the Churchill Falls and James Bay projects, produce 12 to 15 million kilowatts of electricity, much of which is currently exported to northeastern U.S. markets.

Electric power and natural gas accounted for 81 percent and 12 percent, respectively, of the output of the utilities industry. Demand for these forms of energy will continue to increase, as Canada moves away from petroleum products, especially for heating.

1.3.10 Services

In the non-commercial services sector, the changing age profile of Canada's population should decrease the demand for educational facilities and increase the demand for health care facilities as the populace ages. Commercial services to business management (20 percent of the sector), accommodation and food services (14 percent), personal services (4 percent), amusement and recreation (4 percent), and miscellaneous services (5 percent) have experienced significant real growth in recent years. Food services is expected to continue to be a growth area, as more women enter the work force and personal disposable income rises. Computer and data processing services are also expanding quickly, with companies such as Cognos Corp. and Systemhouse demonstrating significant growth in customized computer systems software.

1.4 Summary

1.4.1 Market Similarities

Many international companies, such as Toyota, Siemens, Ikea, Volvo, Pechiney and Olivetti, have established in Canada to serve Canadian, North American and world markets from this central location. U.S. firms, such as Westinghouse, United Technologies and Litton Industries, have specialized operations in Canada from which to service world markets. Investors in Canada, with an interest specifically in the North American market, benefit from the similarity between the Canadian and American markets.

Specifically, such investors profit from the physical proximity, similar business practices, common language, shared time zones and liberal bilateral trade agreements, like the Auto Pact, between the two countries. Thousands of Canadians and Americans travel each day to each other's country without the need for a visa or passport. By 1987, 80 percent of Canada's exports to the U.S. will be duty-free. An additional 10 percent will carry a duty of less than 5 percent.

1.4.2 The Connection to Regional North American Markets

In many ways, there are forces at work throughout Canada which substitute a north-south flow of trade for that of an east-west direction. Perhaps the strongest force is proximity. (See Figure 3). The average resident of Winnipeg will likely have travelled to Minneapolis, Minnesota, instead of Toronto or Montreal. Community of interest also encourages the development of this north-south flow. The economic base of Manitoba is more similar to that of North Dakota and Minnesota, than it is to the economic base of southern Ontario. Additionally, the east and west coasts have only four hours of common business time daily, while neighbours to the north or south share the full business day. New technological forces, such as easy access to telecommunications and the expansion of powerful television and radio broadcasts, are breaking down barriers and promoting the growth of north-south dialogue. Political and economic forces, such as multilateral or bilateral trade agreements designed to eliminate trade barriers, are also encouraging the development of a north-south trade and integrated regional markets. Investors who wish to serve the North American market should give serious consideration to the advantages of a Canadian location, as an access to the North American markets.

2. THE CANADIAN PRESENCE IN THE NORTH AMERICAN MARKET

2.1 The Major Regions

Canadian exports to the U.S. in 1985 exceeded Japanese exports to the U.S. The integration of the Canadian and U.S. markets can be seen clearly in the development of four regional north-south markets - the Atlantic, the midwest, the prairie and the west coast - which together purchased some $86.5 billion of Canadian goods and services, or 95 percent of total Canadian exports to the U.S. in 1985. (See Table 4).

2.1.1 The U.S. Atlantic Region

Total Canadian exports to the region in 1985 were some $32.7 billion, of which some $21.2 billion were destined for New York, New Jersey and Pennsylvania. These exports consisted mainly of industrial machinery, transportation equipment and consumer goods ($14.9 billion), and fabricated materials ($14.6 billion). Central Canada supplied the Atlantic region with some $26.5 billion of the goods and services, while Atlantic Canada supplied $2.8 billion (approximately 90 percent of the latter region's exports to the U.S.).

Penetration of U.S. Regional Markets – 1985

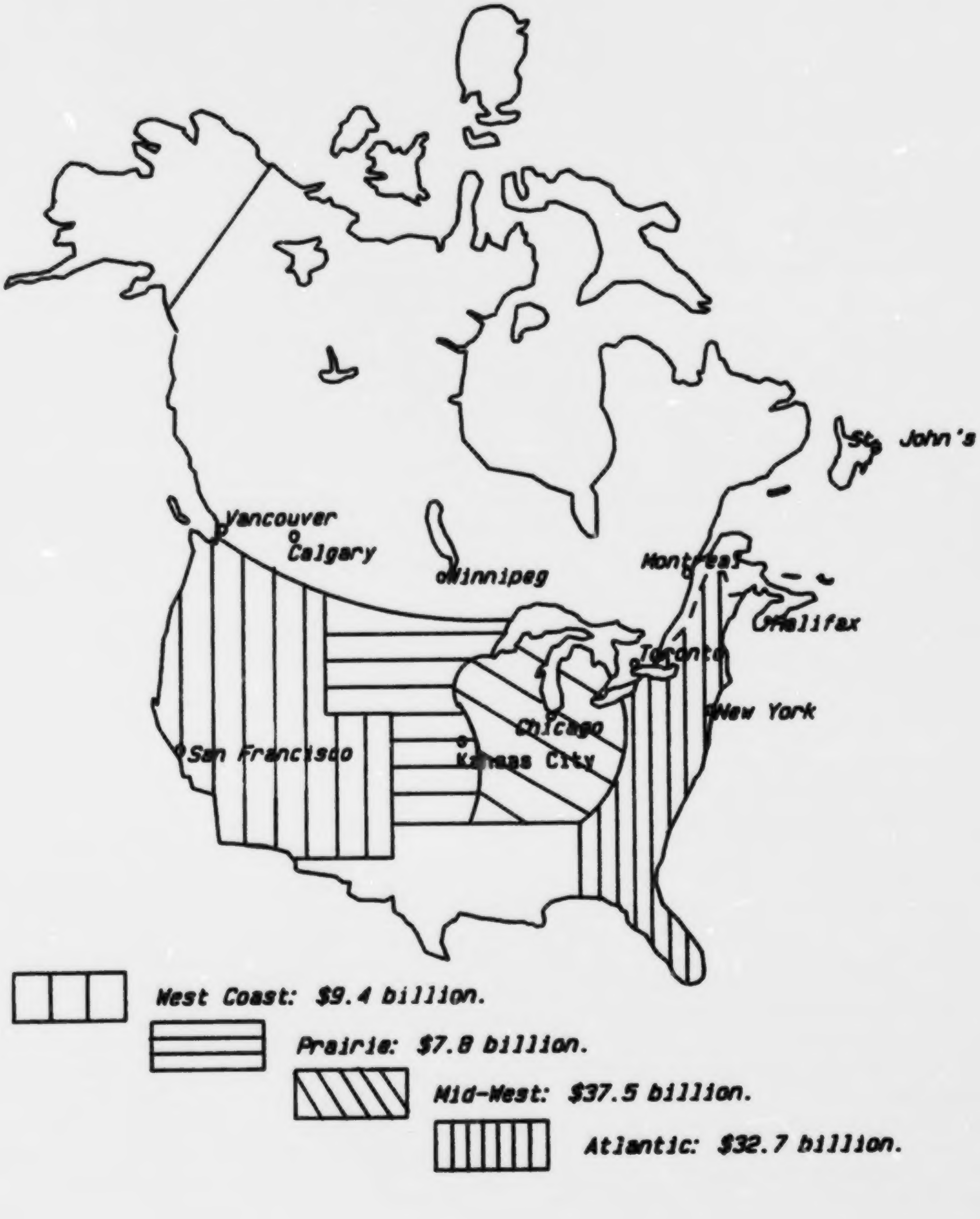

St. John's
Vancouver
Calgary
Winnipeg
Montreal
Halifax
Toronto
New York
Chicago
San Francisco
Kansas City
West Coast: $9.4 billion.
Prairie: $7.8 billion.
Mid-West: $37.5 billion.
Atlantic: $32.7 billion.

TABLE 4

DOMESTIC EXPORTS TO U.S., BY REGION AND PRODUCT - 1985*

			U.S.		
	Atlantic	Midwest	Prairie	West Coast	Other
	($ millions)				
Live Animals	63.3	113.6	172.6	86.4	6.0
Food, Beverages, Tobacco	1,992.0	640.6	113.3	399.7	32.1
Crude Materials, Inedible	2,238.1	3,465.9	2,926.5	2,513.9	373.7
Fabricated Materials, Inedible	14,006.4	9,184.7	2,617.9	3,681.7	1,244.5
End Products, Inedible	14,346.9	24,010.9	1,965.4	2,696.5	1,907.3
Special Transactions **	33.1	40.5	17.8	29.6	178.9
Total Domestic Exports	32,679.8	37,456.2	7,813.5	9,408.0	3,742.5
From: Atlantic Canada	2,811.1	131.0	15.0	53.4	115.0
Central Canada	26,595.4	31,750.1	2,485.5	2,623.7	2,843.9
Prairie Canada	1,691.5	4,899.1	4,838.3	2,887.9	348.6
Pacific Canada	1,581.8	677.0	474.1	3,843.0	445.6

* Estimates based on three quarters annualized.

** Includes non-reusable packaging and contractors' tools and equipment which are intended to return to Canada upon completion of a project.

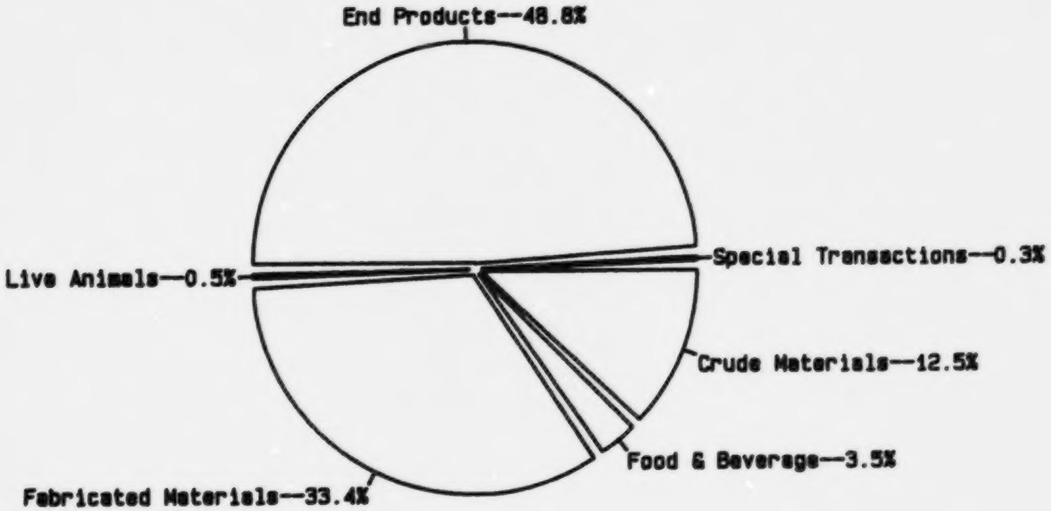
Source: Statistics Canada

2.1.2 The U.S. Midwest Region

Overview and Industrial Base

Including the states of Ohio, Michigan, Illinois, Indiana, Wisconsin, Kentucky and Tennessee, this region has a population of 46 million people. It's varied economic base includes agriculture, manufacturing, mining and service industries. Incorporating the second largest urban market in the U.S. (Chicago, Illinois), fully two-thirds of the total U.S. GNP is produced within an 800 kilometer (500 mile) radius of Illinois. This state is second only to New York as a headquarters location for Fortune 500 companies. Illinois is the centre of the largest industrial market and the second largest consumer market in the U.S. Major industries concentrated in Illinois include primary and secondary metals, industrial and farm equipment, electrical equipment and appliances, electrical components, food processing and printing equipment. In addition, agriculture is important, and soybeans, corn, dairy products and hogs are major products. The region also includes the metropolitan Detroit area, headquarters of the automobile industry in the U.S. This industry accounts for roughly 40 percent of the total manufacturing activity of the region. Other major manufacturing sectors include machine tools, foundry products, metal stampings, drugs and chemicals.

Domestic Exports to United States by Product – 1985*



Total Exports to U.S.
1985 - ($91.1 billion)

* Estimates based on three quarters annualized.

Source: Statistics Canada.

Canadian Penetration

The U.S. midwest purchased $37.5billion in goods and services from Canadian-based companies in 1985. Of this total, central Canada supplied almost $32billion, the Prairies supplied $4.8billion, and the Maritimes and British Columbia, the balance. Transportation equipment made up $22.3billion (or 53percent) of total exports to the Midwest, and inedible fabricated materials accounted for a further $9.2billion (or 22.5percent).

2.1.3 The U.S. Prairie Region

Overview and Industrial Base

The U.S. prairie region (Idaho, Montana, The Dakotas, Minnesota, Iowa, Nebraska, Wyoming, Kansas and Missouri), has a population of approximately 16 million people. It is the smallest of the four regional markets with Canadian exports totalling $7.8billion. The industrial activities of Minnesota and Iowa dominate others of the region. Minnesota is one of the most affluent states in America (1981 per capita income, US$10,280). It is rich in natural resources, agriculture and high technology industries. Its diversified economy includes a wide variety of manufacturers of machinery, fabricated metal products, food products, primary metals and chemicals. In the resource field, Minnesota has about 63percent of the nation's iron ore mines which are located near the Canadian border. Forest lands covering the northern portion of the state supply a significant pulpwood, paper and lumber industry.

Agribusiness is a key industry in Minnesota and Iowa. Minnesota's food processing giants include General Mills, Pillsbury, International Multifoods and the Green Giant Company. Approximately eight of ten workers in Iowa depend directly or indirectly on agriculture for employment. Manufacturing activities in Iowa consist mainly of food processing, agricultural machinery manufacturing and wood products production.

Industry has been slow to develop in the Dakotas, Montana, Idaho and Wyoming. Remoteness from major markets and the resulting high transportation costs, together with the small size of the labour force, have lessened the area's appeal as an attractive location for manufacturing firms. The pre-eminent industries are those involved in the processing of raw materials from farms, forests and mines. Food processing, lumber and wood products, smelting and mining of ferrous metals and the oil refining industries account for the majority of economic activity.

Canadian Penetration

As outlined in Table 4, the Prairie provinces were the major Canadian exporters to the region, supplying some $4.8billion in goods and services, while central Canada supplied approximately $2.5billion, and Pacific Canada some $475million. Inedible crude materials made up $2.9billion of the exports, while inedible fabricated materials and inedible end products made up $2.6billion and $1.9billion, respectively.

2.1.4 The U.S. West Coast Region

Overview and Industrial Base

The west coast region, which runs south from Alaska to California, and as far east as New Mexico in the south, is a large geographical territory with an affluent population of more than 40 million. California is the most dominant economic force in the region, with heavy emphasis on the aerospace, electronics and film production industries, not to mention the highest agricultural output of any state.

The heart of the American aerospace industry, California, receives about 20 percent of the total U.S. defence procurement dollar, and about one-third of all research and development contracts. The National Aeronautics and Space Administration directs half of its expenditures to California. In addition, aeronautical manufacturers and suppliers including Douglas, Northrop, Lockheed, General Dynamics, Rockwell, Boeing and Grumman are located in California. The Canada-U.S. Defence Production Sharing Agreement, and offset obligations resulting from Canadian Armed Forces procurements, presents a significant opportunity for qualified Canadian-based suppliers of high-precision, mechanical, electrical and electronic components and assemblies.

The electronics industry has experienced significant growth in San Francisco, Los Angeles, and San Diego. The industry has also expanded to Arizona, where Phoenix houses some manufacturers such as Motorola, Honeywell, ITT, Intel and Digital Equipment. With the development of new, more sophisticated electronic systems, these markets are expected to grow significantly over this decade. It is anticipated that the growth markets will be medicine, banking, satellite communications networks and consumer electronics. Expansion will also be felt in the areas of computers, communications and software technology. An even more rapid growth is predicted in the semi-conductor industry.

In recent years, the mainly primary-resource economy of Washington and Oregon has generally reflected the recession in the U.S., although there has been some diversification of the employment base into secondary manufacturing. While the Boeing Company's local employment level has swollen to 80,000, its relative position has declined. The strength of the two states has come from the electronics sector, road and rail transportation equipment, construction equipment, marine industries (commercial and recreational) and food processing.

Manufacturing has played an important role in Utah and Colorado for the past 15 years. The industry's structure has changed greatly, evolving more and more towards sophisticated sectors like military/space equipment, electronics and pharmaceuticals. Agriculture remains an extremely important industry for Colorado and Utah, as the requirement for farm products grows, both domestically and abroad.

Canadian Penetration

Exports of $9.4 billion in 1985 were split among inedible crude materials ($2.5 billion), inedible fabricated materials* ($3.7 billion) and other inedible end products** ($2.7 billion). Pacific Canada generated the highest level of export trade with $3.8 billion, followed by the Prairie provinces with $2.9 billion, and central Canada with $2.6 billion (see Table 4).

3. CANADA: AN INTEGRAL PART OF THE NORTH AMERICAN MARKET

3.1 The Canadian Location

Proximity, time zones, and common linguistic and cultural ties have created several regional economic markets in North America following a north-south flow. During the last 100 years the natural community of interest between populations north and south of the border has resulted in the growth of a North American market, in which Canada and the U.S. have become each other's best customer. Exports to the U.S. account for approximately 75 percent of total Canadian exports. Similarly, more than 70 percent of Canadian imports are sourced in the U.S.

3.2 North American Market

Many major American business centres, including Seattle, Minneapolis, Chicago, Philadelphia and New York, are within one day's trucking distance of Canada. Countless other U.S. cities, such as San Francisco, Denver, Kansas City and Nashville are only two days away by truck. The Canadian and U.S. markets are so integrated that the four regional north-south markets of North America link industrial centres in the two countries. In 1985, the Atlantic region absorbed over $32 billion of Canadian exports; the midwest region absorbed over $37 billion; the Prairie region absorbed almost $8 billion. The western region absorbed almost $9 billion. In these four regional North American markets absorbed $86.5 billion, or 95 percent of total exports to the U.S., in 1985 (see Figures 5A and 5B). Trade (exports and imports) flowing north and south of the border within these regions totals $166 billion and is forecast to increase in future years.

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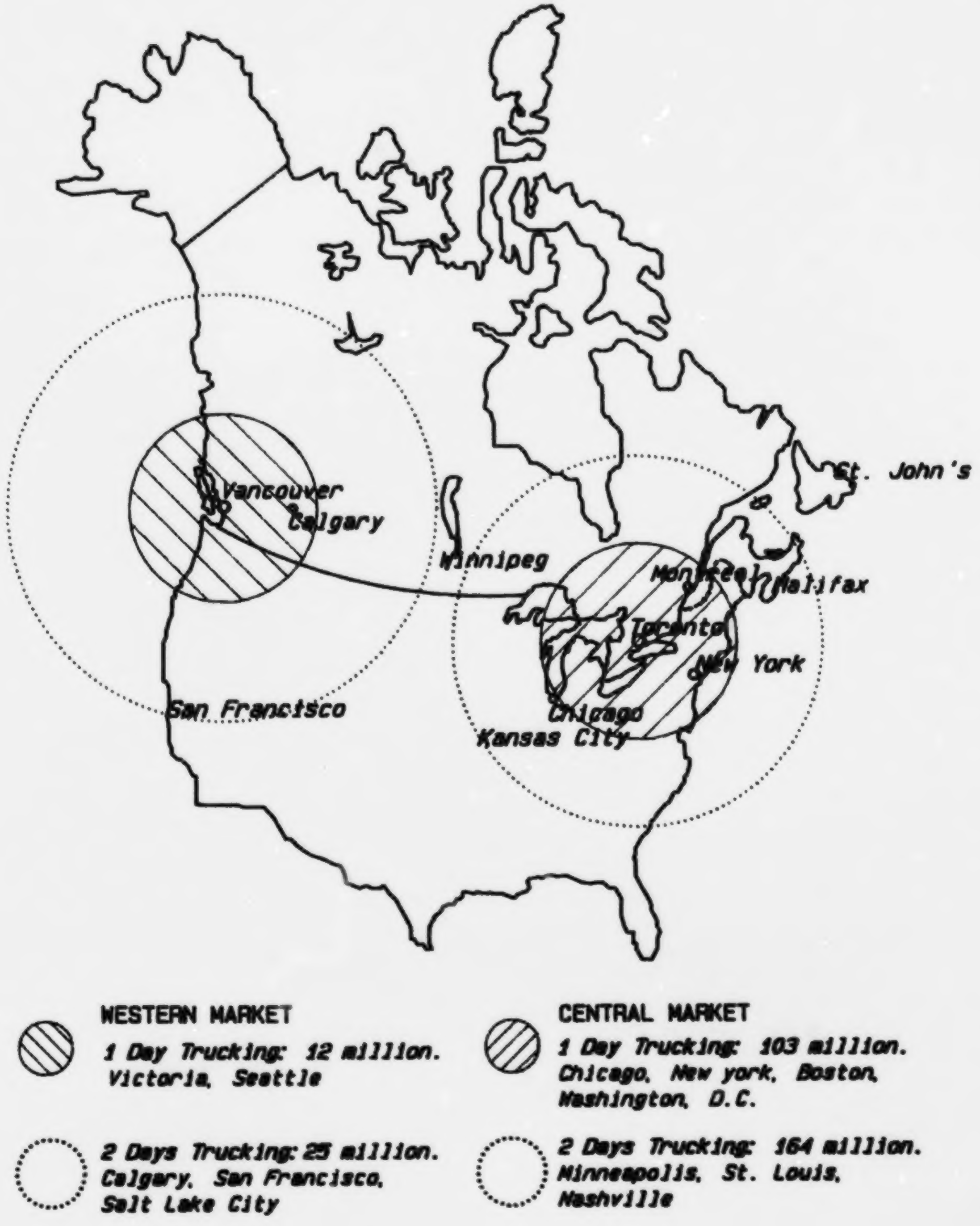
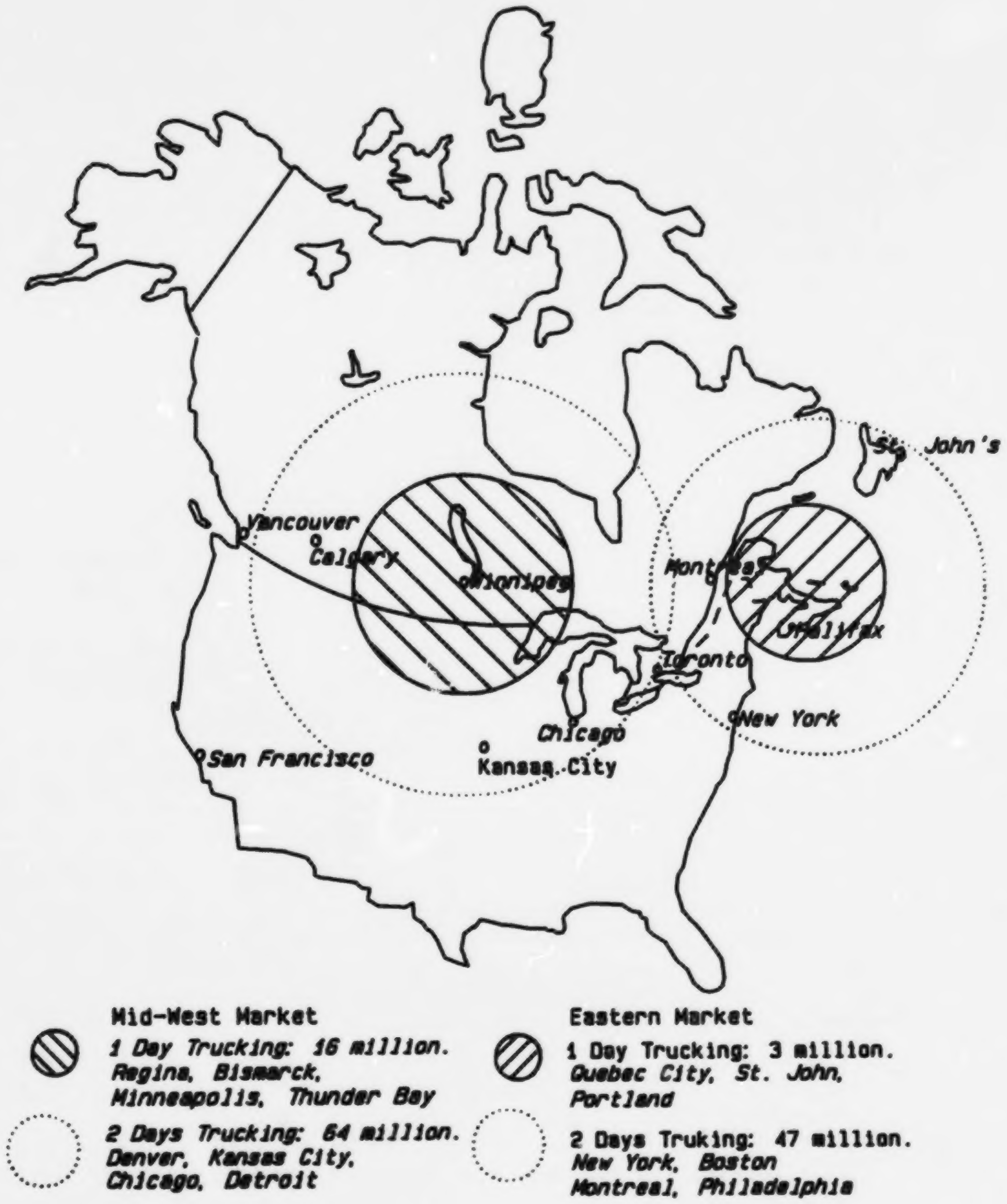
* Including wood, textiles, plastics and minerals, not in end product form (i.e. not as furniture, clothing, etc.)

** Finished manufactured goods, such as machinery, clothing, furniture, etc.

Access to North American Markets


St. John's
Vancouver
Calgary
Winnipeg
Montreal
Halifax
Toronto
New York
San Francisco
Chicago
Kansas City
WESTERN MARKET
1 Day Trucking: 12 million.
Victoria, Seattle
2 Days Trucking: 25 million.
Calgary, San Francisco,
Salt Lake City
CENTRAL MARKET
1 Day Trucking: 103 million.
Chicago, New york, Boston,
Washington, D.C.
2 Days Trucking: 164 million.
Minneapolis, St. Louis,
Nashville

Access to North American Markets



3.3 Development of Duty-Free Trade

The north-south flow of goods, within the North American regional markets, has grown substantially in recent years. This is partially the result of bilateral agreements such as the Canada-U.S. Autopact and the Canada-U.S.

Defence Development and Defence Production Sharing Arrangement. These two agreements essentially remove all tariff and non-tariff barriers on Canadian-manufactured auto products and defence-related equipment entering the U.S. Canada and the U.S. are both signatories to, and supporters of, the General Agreement on Tariffs and Trade (GATT) which has provided a multilateral forum and agenda for the removal of tariff barriers. Under existing GATT Agreements, by 1987, approximately 80 percent of Canada's exports to the U.S. will be duty-free. An additional 10 percent of Canadian exports will carry a duty of less than 5 percent. In essence, tariffs raise few, if any, barriers to Canadian exports to the U.S. However, in recognition of Canada's narrower manufacturing base, tariffs on imports of manufactured goods from the U.S. will fall to a general level of 10 percent by 1987.

3.4 Accessing the North American Market Through Joint Ventures and Licencing

Over the years, Canadian-based businesses have gained significant knowledge of the North American market through a combination of technological leadership and/or investment in marketing and distribution systems. Among the most prominent are such companies as Northern Telecom and Mitel in telecommunications; McCain Foods and the Weston Group in food processing and distribution; Bombardier in transportation equipment; Genstar and McMillan-Bloedel in building products; and Olympia and York and Cadillac- Fairview in real estate development. In addition, non-Canadian controlled companies are increasingly servicing the North American market through Canada. In the automotive parts sector, such companies as Michelin Tire, Toyota and Hyundai all have established Canadian plants to manufacture parts for North American or world markets. In the expanding office automation sector, such non-Canadian companies as Philips, through its subsidiary Micom, and Xerox, as well as Canadian companies such as AES, are manufacturing in Canada for North American and world markets.

The development of such North American market expertise and leadership in technology are important because many investors are moving towards more flexible and pragmatic forms of market access, such as joint ventures and licencing agreements. While such arrangements are not new, they are increasingly common throughout the western world. For example, in 1983, joint ventures in the U.S. increased more than 75 percent over the 1980 number. As product development costs soar, product cycles shrink, cost advantages become pronounced, and as more firms forsake purely domestic markets to compete in world markets, investors are increasingly seeking ways to penetrate large markets and lower costs and risks. The establishment of wholly-owned subsidiaries to accomplish these missions is losing favour. Joint venture and licencing arrangements with domestic firms with complementary technology and well-established distribution systems, are becoming increasingly common. Examples such as joint ventures between AT&T and C. Olivetti Inc., AT&T and Philips, and L.M. Ericsson and Honeywell, to develop, manufacture and market each other's products are becoming increasingly common.

With merging technologies, corporations are learning that it is often more advantageous to develop international standards in co-operation with manufacturers of peripheral equipment to ensure compatibility and wide market acceptance, rather than attempting to serve by themselves all the equipment needs of the users. For example, Northern Telecom together with Sperry-Univac, Digital Equipment Corporation and others have agreed to develop their differing products using the same technology to ensure compatibility.

Canada is attractive to foreign licensors for a variety of reasons. First, Canada does not require any registration or public disclosure of licences. Secondly, exclusive licences, which are prohibited by many countries, are not prohibited in Canada. Thirdly, Canada does not have exchange controls or other restrictions on the payment of royalties. Finally, Canadian licence agreements are treated as any other commercial contract and benefit from the well-defined and long-established legal rights that such contracts have won in the courts of law.

Consequently, numerous opportunities exist today for emerging international corporations to access the North American market rapidly and inexpensively through joint ventures or licence arrangements with Canadian businesses that have well-developed North American market expertise and market recognition as purveyors of high-quality and advanced technology equipment and services. Among the many examples of such arrangements are the recent announcements by Magna International Inc., Fleet Aerospace Corporation, Denison Mines Limited, Fathom Oceanology Limited and others to form joint ventures with non-Canadian corporations in varied sectors such as automotive parts manufacturing, helicopter manufacturing, coal mining and ocean research.

3.5 Comparative Advantages:

A Canadian location offers many investors lower input costs that make exports of Canadian-manufactured goods and services very competitive in the thriving North American market.

3.5.1 Exchange and Labour Costs

The steady devaluation of the Canadian dollar vis-à-vis the U.S. dollar has tended to increase the level of north-south trade in recent years. Currently, the Canadian dollar has only 73 percent of the value of a U.S. dollar. Many forecasters do not see the Canadian dollar rising over 75 cents U.S. in the near future. This has reduced comparative labour costs and other input costs. While nominal Canadian labour costs often appear comparable to U.S. labour costs, once the exchange rate is computed, the labour costs in Canada are significantly lower. In addition, the government-supported health care system and pension plans in Canada can mean a reduction in employee benefit costs of approximately 5 percent. For example, a study on labour costs for manufacturers in August of 1985 showed that the average cost of labour in Ontario was only $11.59 and in Quebec $10.97, compared to average costs in Michigan of $17.04, $15.28 in Ohio, $14.13 in Illinois and $12.93 in Pennsylvania. This does not include the cost of fringe benefits.

3.5.2 Lower Energy Costs (See "Energy" for more detail)

Labour costs are not the only lower input costs. Electrical power costs in Canada for industrial users averaged $3.4 per hundred kilowatt-hours in December 1985. A study of comparative industrial electricity rates, in 1985, showed Toronto, Montreal and Vancouver rates were less than 25 percent of the comparable rate in New York City, and less than half the rates in San Francisco, Chicago and Houston. Because Canada is rich in natural gas supplies and has a widespread distribution network, the cost of energy derived from natural gas is significantly lower in Canada. In Canada, the average cost of natural gas in 1984, was $3.62/million BTU for industrial users, compared with an average cost of $5.96/million BTU in the U.S.
Rates in Toronto, Montreal and Vancouver were less than half those in Boston and Los Angeles and 20 percent less than in Dallas, located in a major gas producing area. In recent months, large industrial concerns such as Pechiney and Hyundai have chosen to locate manufacturing operations in Canada to serve North American and world markets, taking advantage of the lower cost of Canadian energy.

3.5.3 Competitive Tax Rates

Taxes throughout North America are generally consumption (sales) and income taxes, as opposed to the value added taxes prevalent in Europe. Rates of taxation vary according to province or state, type of industry and income level. However, the effective rate of taxation imposed by federal and provincial/state governments on a manufacturer is generally lower north of the Canada-U.S. border. In 1983, the effective rate for a Quebec-based manufacturer was 35.5 percent and for an Ontario-based manufacturer was 44.75 percent, compared to 51.4 percent in New York, 50.97 percent in Ohio, and 47.27 percent in Michigan. No level of government in Canada imposes the unitary tax system that is in place in several U.S. states.

However, the field of taxation is extremely complex and varied, and depends upon numerous factors that are constantly changing over time. Direct comparisons of taxation costs cannot be made without detailed and specific information. Despite this, there is wide recognition, and acceptance in principle, by all levels of government that taxation costs north of the border must be competitive with those south of the border. This helps Canada to maintain and increase its attractiveness as a location for existing and new businesses.

3.5.4 Cooperative Business Environment

Perhaps the greatest advantage of a Canadian location is the government's commitment and co-operate with the business community to ensure Canadian-based businesses suffer no comparative disadvantage.

Canadian governments have closely monitored the business environment and in recognition of the existence of some barriers to enterprise, have developed a number of programmes to overcome these barriers. Incentive programmes are offered by the federal, provincial and even some municipal governments. They range from financial loans, grants and equity participation, to tax and duty remission, to employee relocation and training.

3.5.5 A Better Quality of Life

No investment decision can be reached without looking at the quality of life that both the investor and the employees must live with daily. Canada is renowned for its stable political and financial systems where the rights of the individual, property owner, and investor are safeguarded. All investors, regardless of country of origin, have equal access to the legal system and can repatriate their capital or profits at any time, since Canada operates an open economy without any exchange controls. Canadians also enjoy a high standard of living at costs which, in numerous independent studies, have been found to be significantly less than such countries as the U.S.A., Italy, the United Kingdom, Switzerland, Sweden and Japan. Canadians have universal access to extremely high-quality education and health care.
They have, moreover, a social security net that ensures minimum standards for the underprivileged in society. Canadians enjoy a relatively crime-free environment, compared to similarly developed countries. In addition, Canadians not only tolerate, but encourage, a multicultural environment where citizens of various ethnic origins can preserve their heritage.

3.5.6 Some Recent Cases

In April 1985, Hyundai, a South Korean manufacturer of automobiles, announced its decision to locate a new auto parts plant in Quebec. Hyundai joins Honda, General Motors and Renault, Toyota, as one of the numerous auto manufacturers who have recently announced major new investments in manufacturing operations in Canada, designed to serve the North American or world markets. Also, Toyota's aluminum wheel plant located at Delta, British Columbia, started production on April 1, 1985. In other industries, Bell Helicopter, Aluminarie de Bécancour and IBM have all established plants in Quebec within the past few years.

3.6 The Canadian Edge: A Review of the Benefits

No investment decision can be made without reviewing the facts.

- Canada is an integral part of the North American market of 250 million consumers via an extensive road, rail, marine and air transportation network:
  - 151 million persons are within one trucking day of the Canada-U.S. border;
  - 59 million more are within two trucking days;
  - 52 million more within three trucking days.
- Canada has one of the most advanced communications infrastructures in the world, including satellites, microwave, radio, fibre-optic and wired systems, designed for the computer age, and capable of transmitting and receiving large volumes of data.
- Canada offers competitively-priced exports to the U.S., made possible by a favourable exchange rate, significantly lower costs for secure supplies of electricity and natural gas, lower labour costs and lower effective tax rates.

Markets

- Canada has the seventh largest economy in the western industrial world. In 1985, 31 percent of Canadian production was exported (75 percent of Canada's exports go to the U.S.).

- Canada has an enviable quality of life characterized by a high standard of living, universal access to health care and education, low crime rates and a clean environment. In Canada ethnic differences are cherished and blended into a multi-cultural mosaic.

- Canada has secure, abundant supplies of strategic resources, including oil, natural gas, electricity and coal.

- Canada has significantly lower prices for electricity and natural gas than in the U.S.
    - electricity for industrial use in Toronto, Vancouver and Montreal costs almost 70 to 80 percent less than in New York, and about 50 to 60 percent less than in Chicago and San Francisco;
    - the average price for natural gas is 55 percent more in the U.S. than in Canada.

- Canada is a net exporter of oil, natural gas and electricity to the U.S. and exports significant amounts of metallurgical coal to Japan.

- Canada has stable energy prices.

- Canada encourages joint ventures and licensing arrangements.

- Canada has a strong, diversified industrial base.

- Canada has lower labour costs than the U.S.

- Canada has a well-trained and committed pool of human resources, with a reputation for producing high-quality products.

- Canada has a technological infrastructure specifically oriented toward high-technology industry.

- Canada has a government committed to a wide range of generous tax and other incentives.

    - for example, in Cape Breton, Nova Scotia, incentives and tax initiatives can reduce outlays of capital to as little as 16 percent of the original intended investment.

- Canada has a government highly responsive to the needs of the business community.

- Canada has less government involvement in the private sector:

    - deregulation in telecommunications, energy and transportation;
    - privatization of government-owned corporations;
    - positive government attitude (federal and provincial) toward the business community.

APPENDIX I

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TOBACCO PRODUCTS

1. SIZE AND STRUCTURE

	Tobacco Products	% of All Manufacturing
Estimated shipments (1984)*:	1,652	0.7
Major sub-sectors as % of sector shipments (1982):		
- Tobacco products manufacturers	77.7	
- Leaf tobacco processors	22.3	
Employment (1984):	7,500	0.4
Approximate concentration, top 4 enterprises percent of shipments (1980):	99 est	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	63	96
% of employment:	10	52
% of shipments:	15	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Tobacco Products	All Manufacturing
Atlantic and North	-	4.6
Quebec	45.5	25.3
Ontario	54.5	52.7
Prairies	-	9.6
British Columbia	-	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Tobacco Products ($ millions, 1984)	% of All Manufacturing
Shipments	1,652	0.7
Domestic exports	13	**
Domestic shipments	1,639	1.1
Imports	33	**
Apparent market	1,672	0.7

* Exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

**Insignificant proportion

4. EXTERNAL TRADE

	Tobacco Products	% of All Manufacturing
Export orientation (1984):	0.8% of shipments	36.2
Import penetration (1984):	1.9% of apparent market	35.4
Major export clients (1983):	United States 54% EEC 12% Other OECD 1% Non-OECD 33%	
Major import sources (1983):	United States 73% EEC 21% Other OECD 5% Non-OECD 1%	
Major exporters to OECD (1982):	U.S.A., Netherlands, Brazil, Germany	

5. INVESTMENT AND PROFITABILITY

	Tobacco Products ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	35	31	0.4	0.3
Construction	6	7		
Total	38	38	0.4	0.3
		Percentage		
Profits as proportion of revenues	12.0	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL

	Country of Control
Benson and Hedges (Canada) Inc.	U.S.
Imasco Limited (Imperial Tobacco)	U.K.
RJR MacDonald Inc.	U.S.
Rothmans of Pall Mall Canada Limited	U.K.

7. PRODUCTS

Cigarettes
Leaf Tobacco
Smoking Tobacco

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Tobacco Products	% of All Manufacturing
Assets	99.8	44.7
Sales	99.8	49.1
Profits	100.0	51.7

9. TECHNOLOGICAL SITUATION

	Tobacco Products	% of All Manufacturing
Number of firms engaged in R&D (1984):	4	0.4
General level of technology:	low	

10. ROLE OF GOVERNMENT

Direct involvement:	While the industry is not subject to government regulation, it has voluntarily agreed to print health warnings on its product. Heavy federal and provincial taxation also applies to tobacco products. Industrial assistance to new and existing businesses is available through development and export programs such as IRDP, and PEMD
Indirect involvement:	Supply prices are influenced by provincial marketing arrangements, notably the Ontario Flue-Cured Tobacco Growers' Marketing Board.

11. LINKAGES TO OTHER SECTORS

Main suppliers		Principal industrial users
- tobacco growers, suppliers	32%	- products principally enter domestic or foreign distributive trades. None are consumed as inputs by other industries.
- tobacco processors	28%	
- paper stock products	14%	

12. INDUSTRIAL RELATIONS

	Tobacco Products	% of All Manufacturing
Days lost		
- average, 1980-82	16,310	0.5
- lost during 1983	-	-
Days lost as percent of total time worked (1983):	-	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Tobacco Products	% of All Manufacturing
Peak	3rd Q., 1981	2nd Q., 1981
Trough	3rd Q., 1982	4th Q., 1982
Recovery	remained below peak	4th Q., 1984

Annual Activity Change	Percentage	
1981	-3.5	1.0
1982	-14.6	-11.4
1983	25.2	6.0
1984	-3.4	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Tobacco Products	All Manufacturing
a. Real production	-3.4	8.3
b. Employment	-2.6	-3.9
c. Implied productivity (a) less (b)	-0.8	12.2
d. Average weekly wages and salaries	6.0	5.0

Wage increases clearly outpaced productivity gains indicated for the tobacco products sector during 1984. The result implies a rise of about 5% in unit labour costs.

FOOD AND BEVERAGES

1. SIZE AND STRUCTURE

	Food and Beverages ($ million)	% of All Manufacturing
Estimated shipments ($ millions 1984)*:	36,125	16
Major sub-sectors as % of sector shipments (1982)		
- Meat and poultry products	28	
- Dairy products	16	
- Miscellaneous food products	16	
- Beverages	12	
- Feed industry 7		
- Fruit and vegetable processing	6	
- Bakery products	6	
- Fish products 5		
- Flour and breakfast cereals	3	
Employment (numbers, 1984):	221,200	13
Approximate concentration, top 4 enterprises percent of shipments (1980):	55 est	
Share of activity by medium and smaller production units (under 200 employees, 1982)		
% of establishments:	45	96
% of employment:	60	52
% of shipments:	58	41

* Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY
Percentage Distribution of Shipments, (1984)

	Food and Beverages ($ million)	All Manufacturing
Atlantic and North	8.2	4.6
Quebec	26.7	25.3
Ontario	39.1	52.7
Prairies 18.6	9.6	
British Columbia 7.4	7.8	
CANADA		100.0 100.0

3. APPARENT MARKET

	Food and Beverages ($ million, 1984))	% of All Manufacturing
Shipments	36,125	16
Domestic exports	4,555	5
Domestic shipments	31,570	21
Imports*	3,601	4
Apparent market*	35,172	15

* exclusive of non-competing imports (bananas, cotton etc), and exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. TRADE AND TARIFFS

	Food and Beverages ($ million)	All Manufacturing
Export orientation (1984): 13% of shipments	36	
Import penetration (1984): 10% of apparent market	35	

Major export clients (1983):United States 53%;
Japan 14%; EEC 12%;
Non-OECD 18%
Major import source (1983) United States 51%
EEC 18%
Other OECD 14%
Non-OECD 17%
Major exporters to OECD (1982): United States, France, Germany, Brazil

5. INVESTMENT AND PROFITABILITY

	Food and Beverages ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	181	155	9.8	7.4
Construction	810	892	11.1	8.3
Total	992	936	10.9	8.2
		Percentage		
Profits as proportion of revenues	1.9	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Agropur Cooperative Agro alimentaire (Cdn.); Burns Foods Ltd. (Cdn.); Carling O'Keefe Ltd. (U.K.); Canada Packers Ltd., (Cdn.); Coca Cola Ltd., (U.S.); Dairy Products Co-op Ltd. (Sask.), (Cdn.); Fishery Products Ltd., (Cdn.); General Bakeries Ltd., (Cdn.); Gains Inc., (Cdn.); General Foods Inc., (U.S.); Kraft Ltd., (U.S.); John Labatt Ltd., Ault Foods Ltd., (Cdn.); Maple Leaf Mills Ltd., (Cdn.); McCain Foods Ltd. (Cdn.); Molson Co., (Cdn.); Nabisco Brands Ltd. (U.S.); National Sea Products Ltd., (Cdn.); Nestlé Enterprises, (Swiss); Northern Alberta Dairy Pool, (Cdn.); Palm Dairies Ltd., (Cdn.); Proctor and Gamble Inc., (U.S.); Robin Hood Multifoods Inc., (U.S.); Seagram Co., (Cdn.); Silverwood Dairies Ltd., (Cdn.); Hiram Walker Resources Ltd., (Cdn.); George Weston Ltd., (Cdn.)

7. PRODUCTS

Meat and Poultry:
Pork, beef, smoked and cured meat
Canned and prepared meats
Oils, fats; Turkeys, other poultry

Fish Products:
Salmon, groundfish, shellfish

Flour and cereals: Flours, cereals

Dairy Products:
Milk, condensed, evaporated, powder
Butter, cheddar and other cheese
Cream, ice cream, yoghurt

Fruits and Vegetables:
Frozen french fries, canned meats,
Canned vegetables; Apple, tomato,
other juices; Pickles, relishes

Biscuits and bakeries:
Bread, pies, rolls and buns, biscuits.

Other Food Products:
- Confectionery:
  Chocolate bars, chocolates, marshmallows, etc. other candies, gum
- Sugar refiners: Granulated, liquid and icing sugars
- Vegetable Oils: Oil coke, meals, oils
- Miscellaneous:
  Popcorn, chips, snacks Margarine, oils Specialty dinners, pasta products
  Tea, coffee and spices.

Feeds: Complete feeds - cattle, poultry swine. Feed supplements, pet foods, premixed feeds.

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Food and Beverages ($ million, 1984)	All Manufacturing
Assets	28.8	44.7
Sales	26.2	49.1
Profits	47.3	51.7

9. TECHNOLOGICAL SITUATION

	Food and Beverages ($ million, 1984)	All Manufacturing
Intramural R&D expenditures (1984)	78	3.7
Current outlays	65	3.5
Capital outlays	13	5.2
Persons engaged in R&D:	1205	4.7

General level of technology: relatively low

10. ROLE OF GOVERNMENT

Extent of involvement:	relatively low: standard regional, R&D, trade development and tax incentives available.
Indirect involvement:	extensive on agricultural inputs (marketing boards, selective import/export controls, health and sanitary regulations; also health-related regulation on processing, selling food and foodstuffs; extensive provincial control of alcoholic taxation and distribution.

11. LINKAGES TO OTHER SECTORS

Main suppliers:		Principal users:	
- food and beverages sector,	50%	- food and beverages	50%+
- livestock producers,	20%	- accommodation, food services, agricultural feed & fertilizer producers, tanneries	49%
- unprocessed agricultural products,	14%		
- fisheries	3%		

12. INDUSTRIAL RELATIONS

	Food and Beverages	All Manufacturing
Days lost		
- average, 1980-83	327,210	10.4
- lost during 1983	277,020	20.0
Percent of total time worked (1983):	0.5	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Food and Beverages	All Manufacturing
Peak	Ist Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	2nd Q., 1984	4th Q., 1984

Annual Activity Change	Percentage	
1981	2.0	1.0
1982	-0.8	-11.4
1983	0.5	6.0
1984	0.8	8.2

14. LATEST GENERAL PERFORMANCE

		% change 1984/83	
		Food and Beverages	All Manufacturing
a.	Real production 0.8	8.3	
b.	Employment	-5.2	-3.9
c.	Implied productivity (a) less (b) 6.0	12.2	
d.	Average weekly wages and salaries	5.5	5.0

Productivity for food and beverages rose in 1984 basically as a result of employment decreases rather than strong output performance. A marginal reduction in unit labour costs was indicated, as productivity advances narrowly exceeded wage gains.

RUBBER AND PLASTICS

1. SIZE AND STRUCTURE

	Rubber and Plastics	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	5,879	2.5
Major sub-sectors as % of sector shipments (1982):		
- Plastic fabricating	54.7	
- Rubber products	45.3	
Employment (numbers, 1984):	63,700	3.8
Approximate concentration, top 4 enterprises percent of shipments (1980):	33	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	95	96
% of employment:	54	52
% of shipments:	52	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Rubber and Plastics	All Manufacturing
Quebec	23.1	25.3
Ontario	61.8	52.7
British Columbia	3.0*	7.8
Other provinces	12.1*	14.2
CANADA	100.0	100.0

*Estimate based on 1982 census of manufactures data

3. APPARENT MARKET

	Rubber and Plastics ($ millions, 1984)	% of All Manufacturing
Shipments	5879	2.5
Domestic exports	1114	1.3
Domestic shipments	4765	3.2
Imports*	1584	2.0
Apparent market*	6349	2.8

*Exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Rubber and Plastics	% of All Manufacturing
Export orientation (1984):	18.7% of shipments	36.2
Import penetration (1984):	24.9% of apparent market	35.4
Major export clients (1983):	United States 92% EEC 2% Other OECD 2% Non-OECD 4%	
Major import sources (1983):	United States 77% Japan 7% EEC 8% Non-OECD 8%	
Major Exporters to OECD (1982):	Germany, U.S., France, Netherlands	

5. INVESTMENT AND PROFITABILITY

	Rubber and Plastics ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	202	234	2.8	2.5
Construction	29	25	1.6	1.2
Total	231	259	2.5	2.3
		Percentage		
Profits as proportion of revenues	4.0	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

B.F. Goodrich Canada Inc., (U.S.); Comon Inc., (Cdn.); Consumers Glass Company Ltd., (U.S./Cdn.); Dart Products National Ltd., (U.S.); Firestone Canada Inc., (U.S.); G.M. Plastics Group Ltd., (appears Cdn.); Goodyear Canada Inc., (U.S.); Michelin Tires (Canada) Inc., (France); Polysar Ltd. (Cdn.); Protective Plastics Ltd., (Cdn.); Redpath Industries Ltd., (U.K.); Scepter Manufacturing Co. Ltd., (appears Cdn.); Twinpak Inc., (Cdn.); Vitafoam Products Canada Ltd., (U.K.); Woodbridge Foram Corporation, (Cdn.)

7. PRODUCTS

Tire and tubes:	passenger vehicles, light trucks, heavy trucks, equipment and tubes (all types)	Plastic film & sheet:	Plastic pipes, tubes & fittings Automobile parts and accessories (plastic) Household equipment and accessories (plastic) Containers (not bags - plastic) Insulation and other building materials (plastic) Bottle and caps (plastic) Foam (plastic) Rubber hoses Pressure senstive tapes

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Rubber and Plastics	All Manufacturing
Assets	90.4	44.7
Sales	88.8	49.1
Profits	91.1	51.7

9. TECHNOLOGICAL SITUATION

	Rubber and Plastics ($ million)	% of All Manufacturing
Intramural R&D expenditures (1984)	20	1.0
Current outlays	17	0.9
Capital outlays	3	1.2
Persons engaged in R&D :	460	1.8
R&D Performers (No of firms 1982):	31	3.3

General level of technology : High (many plastic products), through to low (many rubber products)

10. ROLE OF GOVERNMENT

The sector is not government regulated, though the federal government owns Polysar Ltd., the world's largest manufacturer of synthetic rubber and rubber latex. Industrial assistance is available through research, development and export programs such as IRDP, IRAP, PEMD and EDC; also through new fully refundable tax credits under the May 1985 federal budget.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- industrial chemicals	46%
- fabrics, other textiles	13%
- advertising, promotional services	5%
- basic and fabricated metals	4%

Principal industrial users	
- construction industry	21%
- general overheads (all sectors)	20%
- transportation equipment	11%
- transportation services and storage	5%
- food and beverages	5%

12. INDUSTRIAL RELATIONS

	Rubber and Plastics	% of All Manufacturing
Days lost		
- average, 1980-82	33,270	1.1
- lost during 1983	126,790	9.2
Days lost as percent of total time worked (1983):	0.8	0.3

13. GENERAL ACTIVITY CHANGES - 1982 RECESSION (Real Output)

Cooperative Cyclical Pattern	Rubber and Plastics	All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	3rd Q., 1984	4th Q., 1984

Annual Activity Change	Percentages	
1981	2.6	1.0
1982	-10.7	-11.4
1983	12.3	6.0
1984	16.2	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Rubber and Plastics	All Manufacturing
a. Real production	16.2	8.3
b. Employment	-5.2	-3.9
c. Implied productivity (a) less (b)	21.4	12.2
d. Average weekly wages and salaries	4.0	5.0

Both declining employment and a strong advance in real output implied significant productivity increases for the sector in 1984. With wage gains held to 4%, a 17% lowering in unit labour costs was indicated.

LEATHER INDUSTRIES

1. SIZE AND STRUCTURE

	Leather Industries	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	1,379	0.6
Major sub-sectors as % of sector shipments (1982):		
- Shoe factories	58.8	
- Luggage and handbags manufacturers	22.0	
- Leather tanneries	16.1	
- Leather gloves manufacturers	3.0	
Employment (numbers, 1984):	23,900	1.4
Approximate concentration, top 4 enterprises percent of shipments (1980):	36	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	96	96
% of employment:	73	52
% of shipments:	68	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Leather Industries	% of All Manufacturing
Atlantic and North	1.0*	4.6
Quebec	37.4	25.3
Ontario	55.9	52.7
Other provinces	5.7*	17.4
CANADA	100.0	100.0

* Estimate based on 1982 census of manufactures data.

3. APPARENT MARKET

	Leather Industries ($ millions, 1984)	% of All Manufacturing
Shipments	1379	0.6
Domestic exports	94	0.1
Domestic shipments	1285	0.9
Imports*	773	0.9
Apparent market*	2058	0.9

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Leather Industries	% of All Manufacturing
Export orientation (1984):	6.8% of shipments	36.2
Import penetration (1984):	37.6% of apparent market (non-competing imports excluded)	35.4
Major export clients (1984):	United States 87% EEC 6% Other OECD 1% Non-OECD 6%	
Major import Sources (1984):	Non-OECD 54% EEC 26% United States 13% Other OECD 7%	
Major Exporters to OECD (1982):	Germany, Italy, India, Spain	

5. INVESTMENT AND PROFITABILITY

	Leather Industries ($ millions) 1984	1985	% of All Manufacturing 1984	1985
New capital expenditures				
Machinery and equipment	19	18	0.3	0.2
Construction	2	3	0.1	0.1
Total	21	21	0.2	0.2
		Percentage		
Profits as proportion of revenues	1.5	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Bata Industries Ltd., (Cdn.); Brown Shoe Company of Canada Ltd., (U.S.); Canada Packers Inc., (Cdn.); Canada West Shoe Manufacturing, (Cdn.); Dimarcantonio Industries Inc., (Cdn.); Robson-Lang Leather Ltd., (U.S.); Savage Shoes Ltd., (Cdn.); Sismans of Canada, (Cdn.); Star Slipper Co. Ltd., (appears Cdn.); United Canadian Shares Ltd., (Cdn.); United Last Inc., (U.S.)

7. PRODUCTS

Shoes (men's, women's, boys' & girls)
High boots
Men's work & utility boots & shoes
Upper leather
Heels, soles & findings
Handbags & purses
Leather gloves

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Leather Industries	% of All Manufacturing
Assets	23.1	44.7
Sales	22.0	49.1
Profits	91.1	51.7

9. TECHNOLOGICAL SITUATION

	Leather Industries	% of All Manufacturing
R&D Performers (No of firms 1982):	3	0.3
General level of technology :	low	

10. ROLE OF GOVERNMENT

Industrial assistance to new and existing firms is available through the CIRB programs; export assistance is available from PEMD and EDC. Global quotas on leather shoes have been set to allow the Canadian industry time to adjust to low-cost import competition.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- leather products producers	30%
- rubber products	14%
- abbatoirs	11%
- industrial, other chemicals	6%
- wholesale services	6%
- advertising, promotional services	4%

Principal industrial users	
- leather industries	58%
- clothing industries	20%
- general overheads (all sectors)	9%
- miscellaneous manufacturing	5%

12. INDUSTRIAL RELATIONS

	Leather Industries	% of All Manufacturing
Days lost		
- average, 1980-82	16,103	0.5
- lost during 1983	1,190	0.1
Days lost as percent of total time worked (1983):	0.2	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Leather Industries	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	remained below peak	4th Q., 1984
Annual Activity Change	Percentage	
1981	5.1	1.0
1982	13.9	-11.4
1983	7.7	6.0
1984	6.9	8.3

14. LATEST GENERAL PERFORMANCE

		% change 1984/83	
		Leather Industries	% of All Manufacturing
a.	Real production	6.9	8.3
b.	Employment	-10.2	-3.9
c.	Implied productivity (a) less (b)	17.1	12.2
d.	Average weekly wages and salaries	3.4	5.0

Real production gains were accompanied by job reductions of over 10%, implying strong productivity gains by leather producers during 1984. With wages growing only modestly, producers experienced a clear decrease in implicit unit labour costs of about 14%.

TEXTILE INDUSTRIES

1. SIZE AND STRUCTURE

	Textile Industries	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	5,734	2.5
Major sub-sectors as % of sector shipments (1982):		
- Synthetic fibre mills	27.3	
- Miscellaneous textile industries	24.6	
- Other yarn and cloth mills	13.9	
- Carpet manufacturers	12.1	
- Automobile fabric manufacturers	10.6	
- Woollen mills	5.7	
- Canvas products manufacturers	3.6	
- Felt and fibre mills	1.4	
Employment (numbers, 1984):	61,600	3.7
Approximate concentration, top 4 enterprises percent of shipments (1980):	59	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	95	96
% of employment:	68	52
% of shipments:	63	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Textile Industries	All Manufacturing
Atlantic and North	2.2	4.6
Quebec	44.1	25.3
Ontario	49.9	52.7
Prairies	2.7	9.6
British Columbia	1.1	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Textile Industries ($ millions, 1984)	% of All Manufacturing
Shipments	5734	2.5
Domestic exports	459	0.5
Domestic shipments	5275	3.6
Imports*	1898	2.3
Apparent market*	7173	3.1

*exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Textile Industries	% of All Manufacturing
Export orientation (1984):	8.0% of shipments	36.2
Import penetration (1984):	26.5% of apparent market	35.4
Major export clients (1983):	United States 44% EEC 13% Other OECD 13% Non-OECD 30%	
Major import Sources (1983):	United States 50% EEC 17% Other OECD 10% Non-OECD 23%	
Major exporters to OECD (1982):	Germany, Italy, France, Belguim	

5. INVESTMENT AND PROFITABILITY

	Textile Industries ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	162	187	2.2	2.0
Construction	29	21	1.6	1.0
Total	191	208	2.1	1.8
		Percentage		
Profits as proportion of revenues	2.5	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Albany International Canada Inc., (U.S.); Amoco Fabrics Ltd., (U.S.); Celanese Canada Inc., (U.S.); Consoltex Inc., (U.K./Japan); Dominion Textiles Inc., (Cdn.); DuPont Canada Inc., (U.S.); Harding Carpets Ltd., (Cdn.); JWI Ltd., (Cdn.); Marimac Ltd., (Cdn.); Textiles Dionne Inc., (Cdn.); Wabasso Inc., (Cdn.)

7. MAJOR PRODUCTS

- Broad fabrics
- Cotton woven fabrics & other woven
- Tufted carpets in rolls (all types)
- Seat covers (original equipment)
- Cotton yarns, spun & filament
- Woolen broadwoven & worsted fabrics
- Spun yarns (all types)

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Textile Industries	All Manufacturing
Assets	51.2	44.7
Sales	51.8	49.1
Profits	41.4	51.7

9. TECHNOLOGICAL SITUATION

	Textile Industries ($ million)	% of All Manufacturing
Intramural R&D expenditures (1984)	11	0.5
Current outlays	10	0.5
Capital outlays	1	0.4
Persons engaged in R&D :	210	0.8
R&D Performers (No of firms 1982):	19	2.0
General level of technology :	low	

10. ROLE OF GOVERNMENT

Industrial assistance for expansion, modernization and restructuring is available through CIRB; export promotion assistance is available through DEMD and EDC. Bilateral export restraints (scheduled to expire in 1986) have been negotiated with 21 countries in order to prevent injury to existing Canadian industry and allow time for the Canadian industry to restructure and adjust.

11. LINKAGES TO OTHER SECTORS

Main suppliers		Principal industrial users	
- yarns, synthetic fibre producers	28%	- textile industries	31%
- other textile producers	20%	- clothing industries	29%
- industrial, other chemicals	13%	- knitting mills	10%
- wholesale services	4%	- rubber, plastic products	5%
		- furniture producers	4%

12. INDUSTRIAL RELATIONS

	Textile Industries	% of All Manufacturing
Days lost		
- average, 1980-82	55,337	1.8
- lost during 1983	6,290	0.5
Days lost as percent of total time worked (1983):	0.04	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Textile Industries	All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	3rd Q., 1982	4th Q., 1982
Recovery	remained below peak	4th Q., 1984

Annual Activity Change	Percentage	
1981	3.5	1.0
1982	-19.9	-11.4
1983	9.0	6.0
1984	- 2.2	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Textile Industries	All Manufacturing
a. Real production	- 2.2	8.3
b. Employment	- 0.3	-3.9
c. Implied productivity (a) less (b)	-1.9	12.2
d. Average weekly wages and salaries	1.6	5.0

A slight decrease in productivity was exacerbated by a marginal increase in wages and salaries, resulting in a 4% increase in unit labour costs.

KNITTING MILLS

1. SIZE AND STRUCTURE

	Knitting Mills	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	1,073	0.5
Major sub-sectors as % of sector shipments (1982):		
- Knitting mills (except hoisery)	76.3	
- Hoisery mills	23.7	
Employment (numbers, 1984):	18,300	1.1
Approximate concentration, top 4 enterprises percent of shipments (1980):	23	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	91	96
% of employment:	64	52
% of shipments:	67	41

* Published survey data adjusted for more recent reference year.

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Knitting Mills	% of All Manufacturing
Quebec	67.5	25.3
Ontario	26.6	52.7
Prairies	2.2*	9.6
Other provinces	3.7*	12.4
CANADA	100.0	100.0

* Estimate based on 1982 census of manufactures data.

3. APPARENT MARKET

	Knitting Mills ($ millions, 1984)	% of All Manufacturing
Shipments	1073	0.5
Domestic exports	18	-
Domestic shipments	1055	0.7
Imports*	616	0.8
Apparent market*	1671	0.7

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Knitting Mills	% of All Manufacturing
Export orientation (1984):	1.6% of shipments	36.2
Import penetration (1984):	36.9% of apparent market	35.4
Major export clients (1983):	United States 72%	
	Non-OECD 13%	
	EEC 5%	
	Japan 5%	
	Other OECD 6%	
Major import sources (1983):	Non-OECD 72%	
	United States 18%	
	EEC 8%	
	Other OECD 2%	
Major Exporters to OECD (1982):	Germany, Italy, France, Belgium	

5. INVESTMENT AND PROFITABILITY

	Knitting Mills ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	19	22	0.3	0.2
Construction	5	3	0.3	0.1
Total	24	25	0.3	0.2
			Percentage	
Profits as proportion of revenues	2.5	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Burlington Canada Inc., (U.S.); Cluett Peabody Canada Inc., (U.S.); Glenayr-Knit Ltd., (Cdn.); Harvey Woods Ltd., (Cdn.); Les Tricots Main Inc., (--); Stanfield's Ltd., (Cdn.); Tiny Tots Knitting Mills Inc., (appears Cdn.)

7. PRODUCTS

Hoisery: women's, misses & girls'
Sweaters, Pullovers & Cardigans: women's, misses & girls'
Sweaters, Pullovers & Cardigans: men's, youths' & boys'

Hoisery: men's, youths' & boys'
Underwear: men's, youths' & boys'
T-Shirts men's, youths' & boys'

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Knitting Mills	All Manufacturing
Assets	17.6	44.7
Sales	17.1	49.1
Profits	36.6	51.7

9. TECHNOLOGICAL SITUATION

	Knitting Mills	% of All Manufacturing
R&D Performers (No of firms 1982):	3	0.3
General level of technology :	low	

10. ROLE OF GOVERNMENT

Industrial assistance for expansion, modernization and restructuring is available through CIRB; export promotion assistance is available through PEMD and EDC. Bilateral export restraints (scheduled to expire in 1986) have been negotiated with some 21 countries in order to prevent injury to the existing Canadian industry and to allow time for the domestic industry to restructure.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- yarns, synthetics fibre producers	59%
- fabric manufacturers	6%
- knitting mills	5%
- wholesale services	5%

Principal industrial users	
- knitting mills	77%
- textile industries	21%

12. INDUSTRIAL RELATIONS

	Knitting Mills	% of All Manufacturing
Days lost		
- average, 1980-82	1,967	0.1
- lost during 1983	3,620	0.3
Days lost as percent of total time worked (1983):	0.08	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Knitting Mills	All Manufacturing
Peak	1st Q., 1981	2nd Q., 1981
Trough	2nd Q., 1982	4th Q., 1982
Recovery	remained below peak	4th Q., 1984

Annual Activity Change	Percentage	
1981	-0.3	1.0
1982	-12.1	-11.4
1983	8.6	6.0
1984	0.1	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Knitting Mills	All Manufacturing
a. Real production	0.1	8.3
b. Employment	-3.2	-3.9
c. Implied productivity (a) less (b)	3.3	12.2
d. Average weekly wages and salaries	5.8	5.0

Fractional real gains in output and falling employment led to a productivity gain which was outstripped by sectoral wage increases in 1984. Unit labour costs appear as a result to have increased moderately, by 2% to 3%.

CLOTHING INDUSTRIES

1. SIZE AND STRUCTURE

	Clothing Industries	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	4,537	2.0
Major sub-sectors as % of sector shipments (1982):		
- Women's clothing industries	41.6	
- Men's clothing factories	38.2	
- Children's clothing industries	7.7	
- Fur goods industry	6.2	
- Miscellaneous clothing industries	3.5	
- Foundation garment industry	2.8	
Employment (numbers, 1984):	83,800	5.0
Approximate concentration, top 4 enterprises percent of shipments (1980):	16 est.	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	96	96
% of employment:	84	52
% of shipments:	75	41

* Published survey data adjusted for more recent reference year.

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Clothing Industries	% of All Manufacturing
Atlantic and North	0.2*	4.6
Quebec	61.6	25.3
Ontario	25.9	52.7
Prairies	10.0*	9.6
British Columbia	2.3	7.8
CANADA	100.0	100.0

* Estimate based on 1982 census of manufactures data

3. APPARENT MARKET

	Clothing Industries ($ million, 1984)	% of All Manufacturing
Shipments	4537	2.0
Domestic exports	291	0.3
Domestic shipments	4246	2.9
Imports*	1003	1.2
Apparent market*	5248	2.3

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Clothing Industries	% of All Manufacturing
Export orientation (1984):	6.4% of shipments	36.2
Import penetration (1984):	19.1% of apparent market	35.4
Major export clients (1983):	United States 72% EEC 12% Other OECD 10% Non-OECD 6%	
Major import Sources (1983):	Non-OECD 79% ECC 11% United States 7% Other OECD 3%	
Major Exporters to OECD (1982):	Italy, Germany, France, U.K.	

5. INVESTMENT AND PROFITABILITY

	Clothing Industries		% of All Manufacturing	
	1984	1985	1984	1985
	($ millions)			
New capital expenditures				
Machinery and equipment	25	29	0.3	0.3
Construction	4	4	0.2	0.2
Total	29	33	0.3	0.3
		Percentage		
Profits as proportion of revenues	1.8	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Al Nadler Inc., (appears Cdn.); Barmish Inc., (Cdn.); Dylex Ltd., (Cdn.); George Saunders, (Cdn.); Levi Strauss Canada Inc., (U.S.); Les Industries de Chemises Modernes Ltée., (Cdn.); Lingerie C & G Inc., (Cdn.); Les Fabrications Candelle Ltée., (U.S.); Robin Sportswear Ltd., (Cdn.); Tan Jay International Ltd., (Cdn.); Vogue Brassière Inc., (appears Cdn.); Warnaco of Canada Inc., (U.S.)

Other major employers in the sector are:
C.J. Grenier Ltd., (Cdn.); Creations Daisyfresh Inc., (Cdn.); H.D. Lee of Canada Ltd., (U.S.); Gemini Outerwear Ltd., (Cdn.); Masom Manufacturing Co. Ltd., (appears Cdn.); Promo-Wear Ltd., (appears Cdn.); Soutien-Gorge Smart Inc., (appears Cdn.); Wescott Fashions Ltd., (Cdn.)

7. PRODUCTS

Men's pants, slacks & jeans (all types)
Women's dresses (all types)
Men's shirts (all types)
Women's blouses (all types)
Women's fur coats (all types)
Women's coats (all types)
Men's & youths' suits
Children's wear
Women's slacks
Women's skirts
Boys' wear

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Clothing Industries	% of All Manufacturing
Assets	14.2	44.7
Sales	11.5	49.1
Profits	9.1	51.7

9. TECHNOLOGICAL SITUATION

	Clothing Industries	% of All Manufacturing
R&D Performers (No of firms 1982):	3	0.3
General level of technology:	low	

10. ROLE OF GOVERNMENT

Industrial assistance for expansion, modernization and restructuring is available through CIRB; export promotion assistance is available through PEMD and EDC. Bilateral export restraints (scheduled to expire in 1986) have been negotiated with some 21 countries in order to prevent injury to the existing Canadian industry and to allow time for the domestic industry to restructure.

11. LINKAGES TO OTHER SECTORS

Main suppliers		Principal industrial users	
- fabric producers	55%	- clothing industries	60%
- clothing industries	12%	- textile industries	10%
- other textile products	6%	- knitting mills	7%
- wholesale services	6%	- retail services	6%
- hunting, trapping	4%		

12. INDUSTRIAL RELATIONS

	Clothing Industries	% of All Manufacturing
Days lost		
- average, 1980-82	18,166	0.6
- lost during 1983	65,730	4.7
Days lost as percent of total time worked (1983):	0.03	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

	Comparative Cyclical Pattern	
	Clothing Industries	% of All Manufacturing
Peak	1st Q., 1981	2nd Q., 1981
Trough	2nd Q., 1982	4th Q., 1982
Recovery	2nd Q., 1984	4th Q., 1984

Annual Activity Change	Percentage	
1981	-0.3	1.0
1982	-7.4	-11.4
1983	5.3	6.0
1984	4.1	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Clothing Industries	% of All Manufacturing
a. Real production	4.1	8.3
b. Employment	-7.6	-3.9
c. Implied productivity (a) less (b)	11.7	12.2
d. Average weekly wages and salaries	-1.8	5.0

Job reduction was the main contributor to sector productivity gains during 1984. Accompanied by a modest wage reduction, noticeable reduction in unit labour costs were indicated.

WOOD PRODUCTS

1. SIZE AND STRUCTURE

	Wood Products	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	9,910	4.3
Major sub-sectors as % of sector shipments (1982):		
- Sawmills, planing and shingle mills	62.2	
- Millworking plants	18.6	
- Vineer and plywood mills	9.1	
- Miscellaneous wood industries	7.0	
- Wood box factories	2.6	
- Coffin and casket industry	0.5	
Employment (numbers, 1984):	99,400	5.9
Approximate concentration, top 4 enterprises percent of shipments (1980):	26 est	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	97	96
% of employment:	68	52
% of shipments:	64	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Wood Products	% of All Manufacturing
Atlantic and North	5.0	4.6
Quebec	22.7	25.3
Ontario	19.0	52.7
Prairies	6.4	9.6
British Columbia	46.9	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Wood Products ($ millions, 1984)	% of All Manufacturing
Shipments	9910	4.3
Domestic exports	5516	6.6
Domestic shipments	4394	3.0
Imports*	530	0.7
Apparent market*	4925	2.2

*exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Wood Products	% of All Manufacturing
Export orientation (1984):	55.6% of shipments	36.2
Import penetration (1984):	10.8% of apparent market	35.4
Major export clients (1983):	United States 75% EEC 10% Other OECD 9% Non-OECD 6%	
Major import sources (1983):	United States 83% ECC 1% Other OECD 2% Non-OECD 14%	
Major exporters to OECD (1982):	Germany, Canada, U.S.A. Finland	

5. INVESTMENT AND PROFITABILITY

	Wood Products ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	284	268	3.9	2.9
Construction	60	40	3.3	1.9
Total	344	308	3.8	2.7
			Percentage	
Profits as proportion of revenues	0.0	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Balco Industries Ltd., (Cdn.); British Columbia Forest Products Ltd., (Cdn.); B.C. Timber Ltd., (Cdn.); Canadian Forest Products Ltd., (Cdn.); Consolidated Bathurst Inc., (Cdn.); Clearwater Timber Products Ltd., (Cdn.); Crestbrook Forest Industries Ltd., (Japan); Doman Forest Products Ltd., (Cdn.); Domtar Inc., (Cdn.); Evans Products Co. Ltd., (U.S.); Fletcher Challenge Ltd., (N.Z.); Forex Inc., (Cdn.); J.D. Irving Ltd., (Cdn.); Les Industries Uni Ltée., (Cdn.); Les Materiaux Blanchet Inc., (Cdn.); MacMillan Bloedel Ltd., (Cdn.); Normick Perron Inc., (Cdn.); Whonnock Industries Ltd., (Cdn.); Weldwood of Canada Ltd., (U.S.); Weyerhauser Canada Ltd., (U.S.)

7. PRODUCTS

Lumber
Wood chips
Shingles and shakes
Plywood (all types)
Wooden prefabricated houses (all types)
Particleboard and waferboard
Wooden boxes and pallets
Treated wood
Veneer (all types)

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Wood Products	All Manufacturing
Assets	14.8	44.7
Sales	13.6	49.1
Profits	32.5	51.7

9. TECHNOLOGICAL SITUATION

	Wood Products	% of All Manufacturing
R&D Performers (No of firms 1982):	7	0.8
General level of technology :	largely established	

10. ROLE OF GOVERNMENT

The sector is relatively free of government regulation. Industrial assistance for new and existing businesses is available through the IRDP; export promotion assistance is available through PEMD, Cooperative Overseas Market Development Program (COMDP) and EDC. Various enviromental regulations. Various provincial timber rights, and licensing requirements apply to the industry's basic logging inputs.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- logging industry	49%
- general operating overhead, all sectors	9%
- saw mills	9%
- other wood industries	8%
- wholesale margins	4%

Principal industrial users	
- construction industry	48%
- paper, allied industries	21%
- wood industries	19%
- furniture industry	8%

12. INDUSTRIAL RELATIONS

	Wood Products	% of All Manufacturing
Days lost		
- average, 1980-82	481,413	15.3
- lost during 1983	65,030	4.7
Days lost as percent of total time worked (1983):	0.02	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Wood Products	All Manufacturing
Peak	1st Q., 1981	2nd Q., 1981
Trough	3rd Q., 1982	4th Q., 1982
Recovery	3rd Q., 1984	4th Q., 1984

Annual Activity Change	Percentage	
1981	-3.5	1.0
1982	-14.6	-11.4
1983	25.6	6.0
1984	1.5	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Wood Products	All Manufacturing
a. Real production	1.5	8.3
b. Employment	- 8.0	-3.9
c. Implied productivity (a) less (b)	9.5	12.2
d. Average weekly wages and salaries	6.5	5.0

Productivity increases appear to have been primarily achieved through sectoral employment reductions in 1984. Compared to the indicated rise in productivity, wage increases grew less quickly, implying about a 3% reduction in unit labour costs.

FURNITURE & FIXTURES

1. SIZE AND STRUCTURE

	Furniture & Fixtures	% of All Manufacturing
Estimated shipments ($ millions 1984)*:	3,105	1.3
Major sub-sectors as % of sector shipments (1982):		
- Household furniture manufacturers	48.1	
- Miscellaneous furniture manufacturers	28.9	
- Office furniture manufacturers	20.5	
- Lamp and shade manufacturers	2.4	
Employment (number 1984):	44,600	2.7
Approximate concentration, top 4 enterprises percent of shipments (1980):	19 est.	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	99	96
% of employment:	80	52
% of shipments:	77	41

* Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Furniture & Fixtures	% of All Manufacturing
Atlantic and North	1.3	4.6
Quebec	32.6	25.3
Ontario	54.7	52.7
Prairies	7.7	9.6
British Columbia	3.7	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Furniture & Fixtures ($ millions, 1984)	% of All Manufacturing
Shipments	3105	1.3
Domestic exports	543	0.6
Domestic Shipments	2562	1.7
Imports*	381	0.5
Apparent market*	2943	1.3

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Furniture & Fixtures	% of All Manufacturing
Export orientation (1984):	17.5% of shipments	36.2
Import penetration (1984):	12.9% of apparent market	35.4
Major export clients (1984):	United States 92% EEC 2% Other OECD 1% NON OECD 5%	
Major import sources (1983):	United States 56% EEC 17% Other OECD 8% Non OECD 19%	
Major exporters to OECD (1982):	Germany, Italy, Belgium, Taiwan	

5. INVESTMENT AND PROFITABILITY

	Furniture & Fixtures		% of All Manufacturing	
	1984 ($ millions)	1985	1984	1985
New capital expenditures				
Machinery and equipment	26	30	0.4	0.3
Construction	6	18	0.3	0.9
Total	32	48	0.4	0.4
		Percentage		
Profits as proportion of revenues	0.7	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Artopex Inc.,(Cdn); Commodore Business Machines Ltd.,(Bahamas); Croydon Furniture Systems Inc., (Cdn); Electrohome Ltd., (Cdn); Heintzman Ltd., (Cdn); House of Braemore Furniture Ltd., (Cdn); Les Meubles Radisson Ltée., (Cdn); Meubles Roxton Ltée., (Cdn); Palliser Furniture Ltd., (Cdn); Shermag Inc., (Cdn); Simmons Ltd., (U.S.); Stathearn House Group Ltd., (Cdn)

7. PRODUCTS

Wooden household furniture
Special purpose furniture
Desks, chairs for office use
Springs, mattresses

Hotel, restaurant furniture
Filing equipment
Metal furniture, except office

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Furniture & Fixtures	% of All Manufacturing
Assets	15.0	44.7
Sales	13.5	49.1
Profits	31.7	51.7

9. TECHNOLOGICAL SITUATION

	Furniture & Fixtures	% of All Manufacturing
R&D Performers (No of firms 1982):	10	1.1
General level of technology :	low	

10. ROLE OF GOVERNMENT

Direct involvement: The sector is relatively free of government regulation. Industrial assistance for new and existing businesses is available through IRD and the NRC through such programs as IRAP, PILP and CISTI encourage research and development; export promotional assistance is available through PEMD and EDC.

11. LINKAGES TO OTHER SECTORS

Main suppliers		Principal industrial users	
- metal products	17%	- furniture, fixtures industry	52%
- wood products	14%	- construction industry	29%
- fabrics producers	14%	- wood industries	7%
- wholesale services	10%		
- furniture and fixtures	8%		
- rubber, elastic components	7%		

12. INDUSTRIAL RELATIONS

	Furniture & Fixtures	% of All Manufacturing
Days lost		
- average, 1980-82	32,917	1.0
- lost during 1983	66,100	4.8
Days lost as percent of total time worked (1983):	0.5	0.3

13. GENERAL ACTIVITY CHANGES -1980-84 (Real Output)

Comparative Cyclical Pattern

	Furniture & Fixtures	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	3rd Q., 1982	4th Q., 1982
Recovery remained below peak		4th Q., 1984

Annual Activity Change	Percentage	
1981	9.4	1.0
1982	-21.9	-11.4
1983	14.2	6.0
1984	2.1	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Furniture & Fixtures	% of All Manufacturing
a. Real production	2.1	8.3
b. Employment	-11.5	-3.9
c. Implied productivity (a) less (b)	13.6	12.2
d. Average weekly wages and salaries	7.8	5.0

Real gains in production and falling employment led to a productivity gain which was lessened by sectoral wage increases in 1984. Unit labour costs appear to have decreased by 5% to 6%.

PAPER AND ALLIED INDUSTRIES

1. SIZE AND STRUCTURE

	Paper & Allied Industries	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	18,153	7.8
Major sub-sectors as % of sector shipments (1982):		
- Household furniture manufacturers	72.0	
- Miscellaneous furniture manufacturers	15.4	
- Office furniture manufacturers	10.7	
- Lamp and shade manufacturers	1.8	
Employment (numbers, 1984):	119,600	2.7
Approximate concentration, top 4 enterprises percent of shipments (1980):	33	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	80	96
% of employment:	25	52
% of shipments:	22	41

* Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Paper & Allied Industries	% of All Manufacturing
Nova Scotia	2.6	1.8
Quebec	33.8	25.3
Ontario	33.7	52.7
Alberta	2.4	5.4
British Columbia	17.3	7.8
Other provinces	10.2	7.0
CANADA	100.0	100.0

3. APPARENT MARKET

	Paper & Allied Industries ($ millions, 1984)	% of All Manufacturing
Shipments	18,153	7.8
Domestic exports	10,041	12.0
Domestic shipments	8,112	5.5
Imports*	1,100	0.5
Apparent market*	9,212	4.0

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Paper & Allied Industries	% of All Manufacturing
Export orientation (1984):	55.3% of shipments	36.2
Import penetration (1984):	11.9% of apparent market	35.4
Major export clients (1983):	United States 70% EEC 14% Other OECD 6% Non-OECD 9%	
Major import sources (1983)	United States 84% EEC 7%	
Other OECD 5%		
Non-OECD 4%		
Major exporters to OECD (1982):	Canada, Sweden, United States, Finland	

5. INVESTMENT AND PROFITABILITY

	Paper & Allied Industries		% of All Manufacturing	
	1984 ($ millions)	1985	1984	1985
New capital expenditures				
Machinery and equipment1001	1468	13.8	15.7	
Construction	173	161	9.4	7.7
Total	1174	1629	12.9	14.2
		Percentage		
Profits as proportion of revenues	3.0	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Abitibi-Price Inc., (Cdn.); Boise Cascade Canada Inc., (U.S.); Bonar Packaging Ltd., (U.K.); Building Products of Canada Ltd., (U.S.); CIP Inc., (appears Cdn.); Consolidated-Bathurst Inc., (Cdn.); Domtar Inc., (Cdn.); E.B. Eddy Forest Products Ltd., (Cdn.); Kimberly-Clark of Canada, (U.S.); Kruger Inc., (Cdn.); La Compagnie Price Ltée., (Cdn.), MacMillan Bloedel Ltd., (Cdn.); Scott Paper Ltd., (U.S.); Somerville Belkin Industries Ltd., (Cdn.); Sonoco Ltd., (U.S.)

7. PRODUCTS

- Basic paper and paperboard
- Wood pulp
- Building board, converted paper products
- Corrugated boxes
- Paper boxes and folding cartons
- Plastic bags and folding cartons
- Asphalt roofing products
- Envelopes and labels
- Papers (all types)
- Foil, laminated with paper

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Paper & Allied Industries	% of All Manufacturing
Assets	29.3	44.7
Sales	27.9	49.1
Profits	26.8	51.7

9. TECHNOLOGICAL SITUATION

	Paper & Allied Industries ($ millions, 1984)	% of All Manufacturing
Intramural R&D expenditures (1984)	77	3.7
Current outlays	71	3.8
Capital outlays	6	2.4
Persons engaged in R&D :*	1315	5.1
R&D Performers (No of firms 1982):	37	4.0
General level of technology :	established to advanced	

*Includes R&D expenditures for wood industries

10. ROLE OF GOVERNMENT

The sector is relatively free of government regulation, though the industry has made continuing expenditures to meet environmental requirements. Various provincial timber rights and licencing requirements apply in regard to basic logging inputs. Industrial assistance to new and existing businesses is available through the IRDP. The NRC through such programs as IRAP, PILP and CISTI encourages research and development; export assistance is available through PEMD and EDC. In addition, many provincial governments offer financial assistance programmes.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- pulp and paper sector	49%
- logging industry	15%
- wood products	11%
- general overheads (all sectors)	9%
- industrial, other chemicals	9%

Principal industrial users	
- pulp and paper sector	61%
- printing and publishing	18%
- food, beverage sector	11%

12. INDUSTRIAL RELATIONS

	Paper & Allied Industries	% of All Manufacturing
Days lost		
- average, 1980-82	516,213	16.4
- lost during 1983	121,330	8.8
Days lost as percent of total time worked (1983):	0.4	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output) Comparative Cyclical Pattern

	Paper & Allied Industries	% of All Manufacturing
Peak	1st Q., 1981	2nd Q., 1981
Trough	4rd Q., 1982	4th Q., 1982
Recovery	3rd Q., 1984	4th Q., 1984

Annual Activity Change	Percentage	
1981	-1.9	1.0
1982	-8.9	-11.4
1983	9.7	6.0
1984	4.2	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Paper & Allied Industries	% of All Manufacturing
a. Real production	4.2	8.3
b. Employment	1.3	-3.9
c. Implied productivity (a) less (b)	2.9	12.2
d. Average weekly wages and salaries	3.7	5.0

Productivity gains were as a result of an increase in real production. However, there is an implied increase in unit labour costs as wage increases outstripped productivity.

PRINTING & PUBLISHING

1. SIZE AND STRUCTURE

	Printing & Publishing	% of All Manufacturing
Shipments ($ millions, 1984):	8,107	3.5
Major sub-sectors as % of sector shipments (1982):		
- Commercial printing	47.9	
- Publishing & printing	29.0	
- Publishing only	17.0	
- Platemaking, typesetting etc	6.1	
Employment (numbers, 1984):	112,100	2.7
Approximate concentration, top 4 enterprises percent of shipments (1980):	35	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	99	96
% of employment:	73	52
% of shipments:	61	41

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Printing & Publishing	% of All Manufacturing
Atlantic and North	2.7	4.6
Quebec	29.3	25.3
Ontario	50.0	52.7
Prairies	12.0	9.6
British Columbia	6.0	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Printing & Publishing ($ millions, 1984)	% of All Manufacturing
Shipments	8,107	3.5
Domestic exports	418	0.5
Domestic Shipments	7,689	5.2
Imports*	1,383	1.7
Apparent market*	9,072	4.0

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Printing & Publishing	% of All Manufacturing
Export orientation (1984):	5.2% of shipments	36.2
Import penetration (1984):	15.2% of apparent market	35.4
Major export clients (1983):	United States 93% EEC 4% Other OECD 1% Non-OECD 2%	
Major import sources (1983):	United States 87% EEC 10% Other OECD 2% Non-OECD 1%	
Major exporters to OECD (1982):	United States, United Kingdom	

5. INVESTMENT AND PROFITABILITY

	Printing & Publishing ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment217	231	3.0	2.5	
Construction	35	30	1.9	1.4
Total	252	261	2.8	2.3
		Percentage		
Profits as proportion of revenues	4.8	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Cairn Capital Inc., (Cdn.); Canadian Corporate Management Co. Ltd., (Cdn.); Canadian Newspaper Company Ltd., (Cdn.); Data Business Forms Ltd., (Cdn.); Groupe Quebecor Inc., (Cdn.); Formules d'Affaires Drummond Ltée., (Cdn.); Holmes Binding Services Ltd., (appears Cdn.); Lawson Business Forms Ltd., (U.K.); Maclean Hunter Ltd. (Cdn); Metroland Printing and Publishing Ltd., (Cdn.); Moore Corporation Ltd., (Cdn.); R.L. Crain Inc., (Cdn.); Ronalds Federated Ltd., (Cdn.); Ronalds Western Printing Ltd., (Cdn.); Southam Inc., (Cdn.); Southam Printing Ltd., (Cdn.); The Printing House Ltd., (Cdn.); Thompson Newspapers Ltd., (Cdn.); Toronto Sun Publishing (Cdn); Torstar (Cdn).

7. PRODUCTS

Advertising matter
Continuous forms
Magazines, religious publications, etc.
Individual gummed sets
Newspapers
Labels and tags
Books printed for publishers
Greeting cards

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Printing & Publishing	% of All Manufacturing
Assets	11.0	44.7
Sales	10.8	49.1
Profits	11.2	51.7

9. TECHNOLOGICAL SITUATION

	Printing & Publishing	% of All Manufacturing
R&D Performers (No of firms 1982):	8	0.9
General level of technology :	low	

10. ROLE OF GOVERNMENT

Industrial assistance to new and existing businesses is available through the IRDP; the NRC through such programs as IRAP, PILP and CISTI encourages research and development; the Book Publishing Development Program of the Department of Communications and the Canada Council also provide financial assistance to Canadian-owned book publishers; many provinces have programs to assist firms in this sector. Publishing and certain other cultural industries are subject to special provisions under the Investment Canada Act; proposals by non-Canadians to establish and/or acquire publishing businesses in Canada can potentially be reviewed for net benefit to Canada.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- newsprint, other paper producers	42%
- printing and publishing sector	16%
- advertising, promotions, etc.	7%
- financial real estate services	4%
- chemical products	4%

Principal industrial users	
- general overheads (all sectors)	51%
- travel, promotion, advertising	18%
- printing and publishing	15%

12. INDUSTRIAL RELATIONS

	Printing & Publishing	% of All Manufacturing
Days lost		
- average, 1980-82	20,557	0.7
- lost during 1983	30,760	2.2
Days lost as percent of total time worked (1983):	0.1	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Printing & Publishing	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4rd O., 1982	4th Q., 1982
Recovery	3rd Q., 1984	4th Q., 1984

Annual Activity Change	Percentage	
1981	1.7	1.0
1982	-6.0	-11.4
1983	0.7	6.0
1984	7.4	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Printing & Publishing	% of All Manufacturing
a. Real production	7.4	8.3
b. Employment	-3.2	-3.9
c. Implied productivity (a) less (b)	10.6	12.2
d. Average weekly wages and salaries	3.2	5.0

Gains in real production together with a decrease in employment lead to a significant increase in productivity. While wages and salaries rose moderatily, unit labour costs appear to have delined by 7% to 8%.

PRIMARY METALS

1. SIZE AND STRUCTURE

	Primary Metals	% of All Manufacturing
Shipments ($ millions, 1984):	16,812	7.3
Major sub-sectors as % of sector shipments (1982):		
- Iron and steel mills	46.1	
- Smelting and refining	27.2	
- Steel pipe and tube mills	8.2	
- Aluminum rolling and casting	7.2	
- Iron foundaries	4.2	
- Metal rolling and casting	3.9	
- Copper and alloy rolling	3.2	
Employment (numbers, 1984):	107.500	6.4
Approximate concentration, top 4 enterprises percent of shipments (1980):	73	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	81	96
% of employment:	17	52
% of shipments:	24	41

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

Percentage Distribution of Shipments, (1984)

	Primary Metals	% of All Manufacturing
Quebec	26.7	25.3
Ontario	60.5	52.7
Manitoba and Alberta	5.2	8.4
British Columbia	5.9	7.8
Other provinces	1.7	5.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Primary Metals ($ millions, 1984)	% of All Manufacturing
Shipments	16,812	7.3
Domestic exports	8,270	9.9
Domestic shipments	8,542	5.8
Imports*	3,789	4.7
Apparent market*	12,331	5.4

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Primary Metals	% of All Manufacturing
Export orientation (1984):	49.2% of shipments	36.2
Import penetration (1984):	30.7% of apparent market	35.4
Major export clients (1983):	United States 82% EEC 6% Other OECD 2% Non-OECD 10%	
Major import sources (1983):	United States 72% EEC 11% Other OECD 8% Non-OECD 9%	
Major exporters to OECD (1982):	Germany, Japan, Belgium, Canada	

5. INVESTMENT AND PROFITABILITY

	Primary Metals ($ millions) 1984	Primary Metals ($ millions) 1985	% of All Manufacturing 1984	% of All Manufacturing 1985
New capital expenditures				
Machinery and equipment	820	1485	11.3	15.8
Construction	291	298	15.8	14.3
Total	1111	1783	12.2	15.6
		Percentage		
Profits as proportion of revenues	5.0	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Alcan Canada Products Ltd. (Cdn.); Algoma Steel (Cdn); Canron Inc. (Cdn.); Dofasco Inc. (Cdn.); Inco (Cdn.); Indal Ltd. (U.K.); ITT Industries of Canada Inc. (Cdn.); Interprovincial Steel & Pipe Corp. Ltd. (Cdn.); Ipsco (Cdn); Ivaco (Cdn); Massey-Ferguson Ltd. (Cdn.); Noranda Metal Industries (Cdn.); Noranda Mines Ltd. (Cdn.); Rio Algom Ltd. (U.K.); Sidbec-Dosco Ltd. (Cdn.); Standard Tube Canada Inc. (U.K.); Stelco Inc. (Cdn.); The Canada Metal Co. Ltd. (U.S.).

7. PRODUCTS

Rolled steel products
Pipe & tubing
Structural steel shaper, (unfabricated)
Smelting & refining

Steel ingots; wire rods;
Steel castings
Structural aluminum shaper

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Primary Metals	% of All Manufacturing
Assets	13.0	44.7
Sales	14.7	49.1
Profits	10.3	51.7

9. TECHNOLOGICAL SITUATION

	Primary Metals ($ millions, 1984)	% of All Manufacturing
Intramural R&D expenditures (1984)	111	5.3
Current outlays	104	5.6
Capital outlays	7	2.8
Persons engaged in R&D :	1400	5.4
R&D Performers (No of firms 1982):	15	1.6
General level of technology:	largely established	

10. ROLE OF GOVERNMENT

The sector is relatively free of government regulation. However, the Government of Quebec owns Sidbec Dosco Ltée and has an interest in a new aluminum smelter. Industrial assistance to new and existing firms is available through the IRDP. The NRC through such programs as IRAP, PILP and CISTI encourage research and development. Export assistance is available through the PEMD and EDC programs. Many provinces have programs for industrial development available to firms in this sector.

11. LINKAGES TO OTHER SECTORS

Main suppliers:

- non-ferrous ores, concentrates	39%
- non-ferrous metal producers	15%
- iron ore, concentrates	5%
- iron and steel producers	9%

Principal industrial users:

- primary metal producers	25%
- metal fabricators	24%
- construction industry	11%
- transportation equipment	8%

12. INDUSTRIAL RELATIONS

	Primary Metals	% of All Manufacturing
Days lost		
- average, 1980-82	650,193	20.6
- lost during 1983	88,070	6.4
Days lost as percent of total time worked (1983):	0.3	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Primary Metals	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4rd Q., 1982	4th Q., 1982
Recovery	3rd Q., 1984	4th Q., 1984

Annual Activity Change	Percentage	
1981	-1.7	1.0
1982	-18.0	-11.4
1983	9.2	6.0
1984	16.3	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Primary Metals	% of All Manufacturing
a. Real production	16.3	8.3
b. Employment	3.7	-3.9
c. Implied productivity (a) less (b)	12.6	12.2
d. Average weekly wages and salaries	5.4	5.0

The sector experienced significant gains in real production in 1984, and even allowing for some rise in employment, productivity increased by about 13%. With wages up only 5% to 6%, a reduction in unit labour costs of about 7% was indicated.

METAL FABRICATING

1. SIZE AND STRUCTURE

	Metal Fabricating	% of All Manufacturing
Shipments ($ millions, 1984):	13,036	5.6
Major sub-sectors as % of sector shipments (1982):		
- Metal stamping and casting industries	30.3	
- Miscellaneous fabricating industries	12.0	
- Fabricated structural metal industry	11.9	
- Wire and wire products manufacturers	11.3	
- Ornamental and architectural fabricating	9.6	
- Hardware tool and cutlery manufacturers	8.2	
- Machine shops	5.5	
- Heating equipment manufacturers	3.2	
Employment (number, 1984):	133,100	8.0
Approximate concentration, top 4 enterprises percent of shipments (1980):	30 est	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	98	96
% of employment:	75	52
% of shipments:	68	41

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Metal Fabricating	% of All Manufacturing
Atlantic and North	1.6	4.6
Quebec	27.9	25.3
Ontario	56.5	52.6
Prairies	7.8	9.6
British Columbia	6.2	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Metal Fabricating ($ millions, 1984)	% of All Manufacturing
Shipments	13,036	5.6
Domestic exports	1,185	1.4
Domestic shipments	11,851	8.0
Imports*	2,357	2.9
Apparent market*	14,208	6.2

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Metal Fabricating	% of All Manufacturing
Export orientation (1984):	9.1% of shipments	36.2
Import penetration (1984):	16.6% of apparent market	35.4
Major export clients (1983):	United States 73% Non OECD 19% EEC 5% Other OECD 3%	
Major import sources (1983):	United States 70% EEC 10% Non OECD 9% Other OECD 9%	
Major exporters to OECD (1982):	Germany, USA, Japan, Italy	

5. INVESTMENT AND PROFITABILITY

	Metal Fabricating 1984 ($ millions)	Metal Fabricating 1985 ($ millions)	% of All Manufacturing 1984	% of All Manufacturing 1985
New capital expenditures				
Machinery and equipment	284	299	3.9	3.2
Construction	74	64	4.0	3.1
Total	358	363	3.9	3.2
	Percentage			
Profits as proportion of revenues	3.3	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Alcan Canada Products Ltd. (Cdn.); AMCA International Ltd. (Cdn.); American Can Canada Inc. (U.S.); Greening Donald Co. Ltd. (Germany); Indal Ltd. (U.K); Ivaco Inc. (Cdn.); Shaw Pipe Protection Ltd. (Cdn.); Steelco Inc. (Cdn.); The Continental Group of Canada Ltd. (U.S.); Westeel-Rosco Ltd. (Cdn.).

7. PRODUCTS

Stampings (all metals)
Cans (food & non-food)
Boilers (all types)
Wire (coated & non-coated)
Builders and shelf hardware.

Metal windows (all types)
Dies and moulds (all types)
Sheets (siding)
Metal doors (all types)

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Metal Fabricating	% of All Manufacturing
Assets	34.6	44.7
Sales	34.5	49.1
Profits	45.5	51.7

9. TECHNOLOGICAL SITUATION

	Metal Fabricating ($ millions, 1984)	% of All Manufacturing
Intramural R&D expenditures (1984)	25	1.2
Current outlays	24	1.3
Capital outlays	2*	0.8
Persons engaged in R&D :	495	1.9
R&D Performers (No of firms 1982):	85	9.1
General level of technology :	largely established	

*Rounding accounts for difference in this total

10. ROLE OF GOVERNMENT

The sector is relatively free of government regulation. Industrial assistance to new and existing businesses is available through the IRDP. The NRC through such programs as IRAP, PILP and CISTI encourages research and development. Export assistance is available through PEMD and EDC. Various provincial governments offer a variety of assistance programs.

11. LINKAGES TO OTHER SECTORS

Main Suppliers:

- iron and steel producers	30%
- metal fabricators	19%
- non-ferrous ores, concentrates	14%
- non-ferrous metal producers	9%

Principal industrial users:

- construction industry	43%
- metal fabricators	14%
- transportation equipment	8%
- food and beverage sector	6%
- machinery industries	5%

12. INDUSTRIAL RELATIONS

	Metal Fabricating	% of All Manufacturing
Days lost		
- average, 1980-82	190,267	6.1
- lost during 1983	53,070	3.9
Days lost as percent of total time worked (1983):	0.1	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Metal Fabricating	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4rd Q., 1982	4th Q., 1982
Recovery	remained below peak	4th Q., 1984

Annual Activity Change	Percentage	
1981	0.9	1.0
1982	-18.6	-11.4
1983	-2.2	6.0
1984	5.2	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Metal Fabricating	% of All Manufacturing
a. Real production	5.2	8.3
b. Employment	-13.5	-3.9
c. Implied productivity (a) less (b)	18.7	12.2
d. Average weekly wages and salaries	4.8	5.0

An increase in real production coupled with a substantial reduction in employment resulted in large gains in productivity during 1984. As wages and salaries increased modestly, a substantial reduction in unit labour costs of approximately 15% was indicated for the sector.

MACHINERY

I. SIZE AND STRUCTURE

	Machinery	% of All Manufacturing
Shipments ($ millions, 1984):	8,354	3.6
Major sub-sectors as % of sector shipments (1982):		
- Miscellaneous machinery & equip manufacturers	66.9	
- Office and store machinery manufacturers	15.4	
- Agricultural implement industry	14.2	
- Commercial refrigeration and & air conditioner manufacturers	3.6	
Employment (number, 1984):	77,100	4.6
Approximate concentration, top 4 enterprises percent of shipments (1980):	26 est	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	95	96
% of employment:	57	52
% of shipments:	49	41

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Machinery	% of All Manufacturing
Atlantic and North	0.6	4.6
Quebec	14.2	25.3
Ontario	68.6	52.7
Prairies	12.4	9.6
British Columbia	4.2	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Machinery ($ millions, 1984)	% of All Manufacturing
Shipments	8,354	3.6
Domestic exports	5,834	7.0
Domestic shipments	2,520	1.7
Imports*	12,610	15.6
Apparent market*	15,130	6.6

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Machinery	% of All Manufacturing
Export orientation (1984):	69.8% of shipments	36.2
Import penetration (1984):	83.3% of apparent market	35.4
Major export clients (1983):	(1983 United States, 75.3% EEC 6.7% Other OECD 5.5% Non PECD 3.0%	
Major Import Sources (1983):	United States 82.3% EEC 8.0% Other OECD 6.7% Non OECD 3.0%	
Major Exporters to OECD (1982):	U.S.A., Germany, Japan, U.K.	

5. INVESTMENT AND PROFITABILITY

	Machinery 1984	Machinery 1985	% of All Manufacturing 1984	% of All Manufacturing 1985
	($ millions)			
New capital expenditures				
Machinery and equipment	273	350	3.8	3.7
Construction	58	100	3.2	4.8
Total	331	450	3.6	3.9
	Percentage			
Profits as proportion of revenues	2.7	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

AES Data Inc. (Cdn.); Canadian General Electric Co. Ltd. (U.S.); FMC of Canada Ltd. (U.S.); IBM Canada Ltd. (U.S.); Ingersoll-Rand Canada Inc. (U.S.); Hawker Siddley Canada Inc. (U.K.); Massey Ferguson Industries (Cdn.); Rexnord (Canada) Ltd. (U.S.); Simon Day Ltd. (U.S.); Westinghouse Canada Inc. (U.S.).

7. PRODUCTS

Oil and gas field equipment
Dairy machinery and equipment
Harvesting machines (all types)
Hoisting machinery and parts
Pumps (all types)
Digital peripherals and auxiliary equipment
Business machines and equipment
Pulp and paper industries machinery
Refrigeration equipment and parts
Conveying, elevating and materials handling equiment.

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Machinery	% of All Manufacturing
Assets	48.0	44.7
Sales	59.4	49.1
Profits	62.1	51.7

9. TECHNOLOGICAL SITUATION

	Machinery ($ millions, 1984)	% of All Manufacturing
Intramural R&D expenditures (1984)	182	8.6
Current outlays	162	8.7
Capital outlays	20	8.0
Persons engaged in R&D :	2600	10.0
R&D Performers (No of firms 1982):	141	15.2
General level of technology :	medium to high	

10. ROLE OF GOVERNMENT

The sector is relatively free of government regulation. Duty remission through the extensive MACH Program is also available on imported machinery not available from Canadian production. Industrial assistance to new and existing businesses is available through the IRDP. The NRC through such programs as IRAP, PILP, and CISTI encourages research and development. Export assistance is available though PEMD and EDC. Various provincial governments offer a variety of assistance programs.

11. LINKAGES TO OTHER SECTORS

Main suppliers:

- machinery producers	32%
- primary metal producers	18%
- metal fabricators	10%
- electrical products manufacturers	7%
- wholesaling services	5%

Principal industrial users:

- general overheads (all sectors)	42%
- machinery industries	27%
- construction industry	9%
- transportation equipment	6%

12. INDUSTRIAL RELATIONS

	Machinery	% of All Manufacturing
Days lost		
- average, 1980-82	76,777	2.4
- lost during 1983	57,070	4.1
Days lost as percent of total time worked (1983):	0.3	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output) Comparative Cyclical Pattern

	Machinery	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	1st Q., 1982	4th Q., 1982
Recovery remained below peak		4th Q., 1984

Annual Activity Change	Percentage	
1981	2.4	1.0
1982	-17.8	-11.4
1983	-11.8	6.0
1984	22.2	8.3

14. LATEST GENERAL PERFORMANCE

		% change 1984/83	
		Machinery	% of All Manufacturing
a.	Real production	22.2	8.3
b.	Employment	-7.3	-3.9
c.	Implied productivity (a) less (b)	29.5	12.2
d.	Average weekly wages and salaries	5.4	5.0

Real production increased significantly during 1984 while employment was reduced, resulting in productivity gains approaching 30% were indicated. These gains were only partly offset by wage increases, leading to an implicit reduction of nearly 25% in unit labour costs.

TRANSPORTATION EQUIPMENT

1. SIZE AND STRUCTURE

	Transportation Equipment	% of All Manufacturing
Shipments ($ millions, 1984):	37,343	16.1
Major sub-sectors as % of sector shipments (1982):		
- Motor vehicle and parts manufacturers	80.1	
- Aircraft & aircraft parts manufacturers	9.7	
- Shipbuilding & repair	4.9	
- Railroad rolling stock industry	3.7	
- Boatbuilding industry	0.8	
- Miscellaneous motor vehicle manufacturers	0.8	
Employment (number, 1984):	170,800	10.2
Approximate concentration, top 4 enterprises percent of shipments (1980):	68	
Share of activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	94	96
% of employment:	24	52
% of shipments:	12	41

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Transportation Equipment	% of All Manufacturing
Nova Scotia and New Brunswick	2.1	4.0
Quebec	11.3	25.3
Ontario	82.9	52.7
Saskatchewan and Alberta	0.4	7.3
British Columbia	2.2	7.8
Other provinces	1.1	2.9
CANADA	100.0	100.0

3. APPARENT MARKET

	Transportation Equipment ($ millions, 1984)	% of All Manufacturing
Shipments	37,343	16.1
Domestic exports	32,577	38.9
Domestics shipments	4,766	3.2
Imports*	29,001	35.8
Apparent market*	33,767	14.8

*exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Transportation Equipment	% of All Manufacturing
Export orientation (1984):	87.2% of shipments	36.2
Import penetration (1984):	85.9% of apparent market (non-competing imports excluded)	35.4
Major export clients (1983):	United States 94% EEC 1% Other OECD 1% Non OECD 4%	
Major import sources (1983):	United States 86% Japan 8% EEC 2% Non OECD 4%	
Major exporters to OECD (1982):	Japan, Germany, U.S.A., France	

5. INVESTMENT AND PROFITABILITY

	Transportation Equipment ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	499	1003	6.9	10.7
Construction	160	483	8.7	23.1
Total	659	1486	7.3	13.0
		Percentage		
Profits as proportion of revenues	5.1	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

American Motors (Canada) Inc., (U.S.); Aviation Electric Ltd. (U.S.); Boeing of Canada Ltd. (U.S.); Bombardier Inc. (Cdn.); Bristol Aerospace Ltd. (U.K.); Canadair Ltd. (Cdn.); Chrysler Canada Inc. (U.S.); De Havilland Aircraft of Canada Ltd. (Cdn.); Ford Motor Co. of Canada Ltd. (U.S.); Gabriel of Canada Ltd. (Switz.); General Motors of Canada Ltd. (U.S.); Hawker Siddley Canada Inc. (U.K.); Hayes-Dana Inc. (U.S.); Magna International Inc. (Cdn.); Pratt & Whitney Aircraft of Canada Ltd. (U.S.); Rockwell International of Canada Ltd. (U.S.); Rolls-Royce (Canada) Ltd. (U.K.); Sheller-Globe of Canada Ltd. (U.S.); Spar Aerospace Ltd. (Cdn.); Triple E Canada Ltd. (Cdn.).

7. PRODUCTS

Aircraft and aircraft parts
Railway cars and locomotives
Automobile body stampings
Steering suspensions and front axles
Vehicle bodies; mobile homes
Trailers (all types).
Motor vehicle parts and accessories, engines
Naval vessels (all types)
Wheel and brake parts
Electrical equipment and apparatus
Radiators and cores

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Transportation Equipment	All Manufacturing
Assets	68.6	44.7
Sales	84.4	49.1
Profits	65.5	51.7

9. TECHNOLOGICAL SITUATION

	Transportation Equipment ($ million)	% of All Manufacturing
Intramural R&D expenditures (1984)	328	15.6
Current outlays	314	16.9
Capital outlays	14	5.6
Persons engaged in R&D :	4555	17.8
R&D Performers (No of firms 1982):	38	4.1
General level of technology :	largely established or imported	

10. ROLE OF GOVERNMENT

Canadian and U.S. policy provides for extensive free trade under the provisions of the Auto Pact. Certain defense procurement takes place under the provisions of the Canada-U.S. Defence Production Sharing Arrangement; other special provision is made for trade in off-highway vehicles. Industrial assistance to new and existing businesses is available from IRDP and through DIPP for defense industries. The shipbuilding industry has benefitted from a government procurement policy and the accelerated depreciation for purchasers of Canadian built ships. At the same time, the Shipbuilding Industry Assistance Program (SIAP) is being phased out. Export assistance is available through PEMD and EDC. Both the Federal and some provincial governments own companies which develop and manufacture aircraft and urban transportation equipment. Various provinces offer a variety of programs to assist the industry.

11. LINKAGES TO OTHER SECTORS

Main suppliers:		Principal industrial users:	
- motor vehicle parts mfgrs.	48%	- transportation equipment sector	78%
- primary metal producers	8%	- transportation services	9%
- business services (non-finan.)	7%		
- metal fabricators	6%		

12. INDUSTRIAL RELATIONS

	Transportation Equipment	% of All Manufacturing
Days lost		
- average, 1980-82	414,957	13.2
- lost during 1983	213,490	16.7
Days lost as percent of total time worked (1983):	0.6	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Transportation Equipment	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	4th Q., 1983	4th Q., 1984

Annual Activity Change	Percentage	
1981	0.8	1.0
1982	-10.1	-11.4
1983	16.5	6.0
1984	21.2	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Transportation Equipment	All Manufacturing
a. Real production	21.2	8.3
b. Employment	2.6	-3.9
c. Implied productivity (a) less (b)	18.6	12.2
d. Average weekly wages and salaries	6.3	5.0

A significant real production gain was realized for the sector in 1984, while jobs advanced modestly. Productivity gains were substantial, almost 19% over 1983, and with wage increases of about 6%, the sector was able to register reductions of nearly 12% in implicit unit labour costs.

MOTOR VEHICLES & PARTS

1. SIZE AND STRUCTURE

	Motor Vehicles & Parts	% of All Manufacturing
Estimated shipments ($ millions, 1984)**:	32,050	13.9
Major sub-sectors as % of sector shipments (1982):		
- Motor vehicle manufacturers	68.0	
- Motor vehicle parts producers	27.9	
- Truck body & trailer manufacturers	4.0	
Employment (numbers, 1984)**:	106,500	6.4
Approximate concentration, top 4 enterprises percent of shipments (1980):	79	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	81	96
% of employment:	16	52
% of shipments:	7	41

* published survey data adjusted for more recent reference year

** excludes truck body, trailer producers

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Motor Vehicles & Parts	% of All Manufacturing
Ontario	91	57
Other provinces	9	43
Canada	100	100

3. APPARENT MARKET

	Motor Vehicles & Parts ($ millions, 1984)	% of All Manufacturing
Shipments	32,050	13.9
Domestic exports	29,797	35.6
Domestic Shipments	2,253	1.5
Imports*	25,933	32.0
Apparent market*	28,186	12.3

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Motor Vehicles & Parts	% of All Manufacturing
Export orientation (1984):	93% of shipments	36.2
Import penetration (1984):	92% of apparent market	35.4
Major export clients (1983):	United States 98%	
	Other 2%	
Major import sources (1983):	United States 79%	
	Japan 16%	
	EEC 4%	
	Other 1%	

Major exporters to OECD (1982): Japan, Germany, Canada, U.S.A.

5. INVESTMENT AND PROFITABILITY

	Motor Vehicles & Parts ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	343	799	4.7	8.5
Construction	122	409	6.6	19.6
Total	465	1208	5.1	10.5
	Percentage			
Profits as proportion of revenues	4.0*	n/a	3.8	n/a

* Big 4 vehicle producers and several major parts manufacturers.

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

American Motors (Canada) Inc., (U.S.); Budd Canada, (U.S.); Borg Warner (Canada) Ltd., (U.S.); Canadian Blue Bird International Inc., (U.S.); Chrysler Canada Ltd., (U.S.); Eaton Yale Ltd., (U.S.); Ford Motor Co. of Canada Ltd., (U.S.); Gabriel of Canada Ltd., (Switzerland); General Home Systems Ltd. - Commodore Corp., (U.S.); General Motors of Canada Ltd., (U.S); Hayes-Dana Inc., (U.S.); Kelsey-Hayes (Canada) Ltd., (U.S.); Magna International Inc., (Cdn.); Rockwell International of Canada Ltd., (U.S.); Sheller-Globe of Canada Ltd., (U.S.); Triple-E Canada Ltd., (Cdn.)

7. PRODUCTS

- Passenger cars
- Trucks and motor homes
- Gasoline engines
- Steering suspensions and front axles
- Wheel and brake parts
- Engine parts
- Automotive body stompings
- Truck bodies

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Motor Vehicles & Parts	% of All Manufacturing
Assets	92.2	44.7
Sales	95.9	49.1
Profits	(loss)	51.7

*sector data refers to 1980

9. TECHNOLOGICAL SITUATION

	Motor Vehicles & Parts	% of All Manufacturing
Intramural R&D expenditures (1984)*	59	2.8
Current outlays	56	3.0
Capital outlays	3	1.2
Persons engaged in R&D (1982):	905	3.5
R&D Performers (No of firms 1982):	19	2.0

General level of technology : medium with major R & D occurring abroad

* includes marine and rail producers

10. ROLE OF GOVERNMENT

Industry is rationalized on a North American basis with specified duty free imports under the provisions of the Canada-U.S. Auto Pact. Various specific federal and provincial grants are available. Japanese car imports have recently been entering Canada on basis of voluntary export restraint.

11. LINKAGES TO OTHER SECTORS

Main suppliers

- suppliers of steel and castings, non-ferrous metals and engines predominate among inputs to the parts industry.

Principal industrial users

- substantial output of completed vehicles is eventually consumed through dealers and purchasers abroad. At the industrial level, about 70% of sectoral outputs (in the form largely of parts) is purchased by the assemblers, and to a lesser extent by the transportation services sector.

12. INDUSTRIAL RELATIONS

	Motor Vehicles & Parts	% of All Manufacturing
Days lost		
- average, 1980-82	data not currently available	
- lost during 1983		
Days lost as percent of total time worked (1983):		0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Motor Vehicles & Parts	% of All Manufacturing
Peak	1st Q., 1980	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	1st Q., 1983	4th Q., 1984

Annual Activity Change	Percentage	
1981	0.5	1.0
1982	-3.7	-11.4
1983	27.2	6.0
1984	25.2	8.2

14. LATEST GENERAL PERFORMANCE

		Motor Vehicles & Parts	% of All Manufacturing
a.	Real production	0.8	8.3
b.	Employment	-5.2	-3.9
c.	Implied productivity (a) less (b)	6.0	12.2
d.	Average weekly wages and salaries	5.5	5.0

Moderate productivity gains in 1984 were realized largely because of lower employment levels. Wage gains nearly equalled productivity increases, with the result that the sector was generally able to hold the line on unit labour costs.

ELECTRICAL PRODUCTS

1. SIZE AND STRUCTURE

	Electrical Products	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	9,806	4.2
Major sub-sectors and % of all shipments (1982)		
- Communications equipment manufacturers	35.1	
- Manufacturers electrical industrial equipment	20.7	
- Manufacturers of electrical wire cable	12.8	
- Manufacturers of miscellaneous electrical equipment	11.4	
- Manufacturers of major appliances	8.4	
- Radio and TV manufacturers	4.4	
- Small electrical appliances	4.0	
- Manufacturers of lighting fixtures	3.1	
Employment (numbers, 1984):	107,000	6.4
Approximate concentration, top 4 enterprises percent of shipments (1980):	56 est.	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982)		
% of establishments:	89	96
% of employment:	37	52
% of shipments:	34	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments	
	Electrical Products	All Manufacturing
Atlantic and North	1.0	4.6
Quebec	26.8	25.3
Ontario	66.0	52.7
Prairies	4.1	9.6
British Columbia	2.1	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Electrical Products ($ millions, 1984)	% of All Manufacturing
Shipments	9,806	4.2
Domestic exports	3,693	4.4
Domestic shipments	6,113	4.1
Imports*	6,755	8.3
Apparent market*	12,868	5.6

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. TRADE AND TARIFFS

	Electrical Products	% of All Manufacturing
Export orientation (1984):	38% of shipments	36
Import penetration (1984):	53% of apparent market	35
Major export clients (1983):	United States	69%
	EEC	9%
	Other OECD	7%
	Non-OECD	15%
Major import sources (1983):	United States	63%
	Japan	17%
	EEC	6%
	Non OECD	14%
Major exporters to OECD (1982)	U.S.A., Germany, Japan, U.K.	

5. INVESTMENT AND PROFITABILITY

	Electrical Products ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	359	418	4.9	4.5
Construction	77	62	4.2	3.0
Total	436	480	4.8	4.2
		Percentage		
Profits as proportion of revenues	5.0	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

AEL Microtel Ltd. (U.S.); Camco Inc. (U.S.); Canada Wire & Cable Ltd. (Cdn); Canadian General Electric Co. Ltd. (U.S.); Federal Pioneer Ltd. (U.S.); GTE Sylvania Canada Ltd. (U.S.); Inglis Ltd. (U.S.); Klochner-Moeller Ltd. (Germany); Leigh Instruments Ltd. (Cdn); NEI Canada Ltd. (U.K.); Northern Telecom Ltd. (Cdn); Mitel Corporation (U.K.); Philips Cables Ltd. (U.K.); Square D Canada Electrical Equipment Inc. (U.S.); Varta Batteries Ltd. (Germany); Westinghouse Canada Inc. (U.S.).

7. PRODUCTS

Communications equipment:	Telephone, multiplexing and switching equip. Radio communications equipment Components, printed circuits Navigation equipment	Appliances:	Stoves and ranges, Washers driers, freezers Small appliances
Industrial Equipment:	Starters and controllers Transformers Generators Switchgear assemblies Batteries	Lighting Fixtures:	Industrial lighting equipment Bulbs, tubes, etc.
Electric Wire and Cable:	Telephone cable Power cable Building wires Wiring devices		
Radio and TV:	Television and radio equipment		

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Electrical Products	% of All Manufacturing
Assets	54.4	44.7
Sales	61.7	49.1
Profits	64.3	51.7

9. TECHNOLOGICAL SITUATION

	Electrical Products ($ million)	% of All Manufacturing
Intramural R&D expenditures (1984)	855	40.6
Current outlays	724	39.0
Capital outlays	131	52.0
Persons engaged in R&D:	8465	32.7
General level of technology:	high	

10. ROLE OF GOVERNMENT

Direct Involvement: The sector is relatively free of government regulation. Industrial assistance to new and existing businesses is available through the IRDP. Research and development of new industrial products is assisted through a variety of programs such as IRAP, PILP and CISTI administered by the NRC. Export assistance is available through the PEMD program and EDC. The provinces have a variety of assistance programs.

Indirect involvement: The electric utilities industry is largely owned and controlled by the provincial governments and preferential procurement of electrical industrial equipment manufactured locally is relatively common.

11. LINKAGES TO OTHER SECTORS

Main suppliers		Principal industrial users	
- miscellaneous electrical suppliers	33%	- construction industry	33%
- basic ferrous, non-ferrous products	23%	- electrical products industries	30%
- fabricated metal products	10%	- general overheads (all sectors)	14%
- chemical products	8%	- transportation equipment mfg	9%
		- machinery industries	6%

12. INDUSTRIAL RELATIONS

	Electrical Products	% of All Manufacturing
Days lost		
- average, 1980-82	105,213	3.3
- lost during 1983	92,960	6.7
Days lost as percent of total time worked (1983):	0.4	0.5

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Electrical Products	All Manufacturing
Peak	2nd Q., 1981	4th Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	1st Q., 1985	3rd Q., 1983

Annual Activity Change	Percentage	
1981	7.1	1.0
1982	-11.7	-11.4
1983	2.2	6.0
1984	6.4	8.2

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Electrical Products	All Manufacturing
a. Real production	6.4	8.3
b. Employment	3.5	-3.9
c. Implied productivity (a) less (b)	2.9	12.2
d. Average weekly wages and salaries	8.0	5.0

Sector productivty increased by approximately 3% in 1984. However, wages outstripped productivity gains, implying a 5% increase in unit labour costs. In contrast, all of manufacturing experienced a reduction of 7% in unit labour costs.

COMMUNICATIONS EQUIPMENT

1. SIZE AND STRUCTURE

	Communications Equipment	% of All Manufacturing
Estimated shipments ($ millions, 1984):	3650	2
Major sub-sectors		
- Telecommunications equipment (approximately two-thirds of production)		
- Electronic components		
- Navigational and security equipment		
Employment (numbers, 1984):	46,000	3
Approximate concentration, top 4 enterprises percent of shipments (1980):	54*	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982)		
% of establishments:	92	96
% of employment:	32	52
% of shipments:	19	41

* Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

Percentage Distribution of Shipments	Communications Equipment	% of All Manufacturing
Atlantic	1	5
Quebec	29	25
Ontario	60	52
Prairies 3	10	
British Columbia	3	8
CANADA		100.0

100.0

* estimated 1980-82 average

3. APPARENT MARKET

	Communications Equipment ($ millions, 1984)	% of All Manufacturing
Shipments	3650	2
Domestic exports	2539	3
Domestic shipments	1111	1
Imports*	3002	4
Apparent market*	4113	2

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Communications Equipment	% of All Manufacturing
Export orientation (1984):	72% of shipments	36
Import penetration (1984):	75% of apparent market	35
Major export clients (1983):	U.S. 66% EEC 10% Other OECD 8% Other countries 16%	
Major import sources (1983):	U.S. 74% Japan 11% EEC 4% Other countries 11%	
Major exporters to OECD market (1982):	Japan, Germany, United States, Taiwan	

5. INVESTMENT AND PROFITABILITY

	Communications Equipment ($ millions		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	48.4	26.5	2.6	1.3
Construction	214.5	233.1	3.0	2.5
Total	262.9	259.6	3.9	2.3
		Percentage		
Profits as proportion of revenues	9.1	n/a	3.8	n/a

6. MAJOR FIRMS AND OWNERSHIP

CAE Electronics, (Cdn-held); Canadian Marconi, (U.S); Leigh Instruments, (Cdn); ITT Industries of Canada, (U.S.); Microtel (U.S.); Mitel (Cdn); Northern Telecom (Cdn); Spar Aerospace, (Cdn).

7. PRODUCTS

Telecommunications:
- telephone and telegraph carrier equipment
- key telephone systems
- private branch exchange (PBX units or 'switches')
- mobile radio, telephone sets and paging systems
- central office switching systems and equipment
- telephone sets
- transmission systems (cable, microwave, optical fibre)
- terminal attachments

Electronic components
- semi-conductors and integrated circuits
- resistors, electronic capacitors and transformers
- printed circuits with and without components

Navigational equipment
- radar, sonar for airborne and marine navigation

Security and alarm systems

Electronic sound equipment

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Communications Equipment*	% of All Manufacturing
Assets	70	45
Sales	56	49
Profits	49	52

* Sector data refers to 1980.

9. TECHNOLOGICAL SITUATION

	Communications Equipment ($ million)	% of All Manufacturing
Intramural R&D expenditures (1984)	749	36
Current outlays	636	34
Capital outlays	113	45
Persons engaged in R&D :	645	26
General level of technology :	high	

10. ROLE OF GOVERNMENT

Direct involvement:	- Industrial assistance largely flows through research and development and export mechanisms, such as IRDP, EDC, DIPP, PEMD; also through new fully refundable tax credits under the May 1985 federal budget. NRC and Communications Department also support research;
Indirect involvement:	- Carriers are regulated through the Department of Communications, broadcasters through the CRTC; various equipment must meet Defence standards in Canada and abroad, as in U.S.

11. LINKAGES TO OTHER SECTORS

About 70% of supply to the sector arises from elsewhere within the sector, e.g. components entering final products. Plastics, resins, steel and non-ferrous metals and stampings also enter the product in flow. Major users are the 13 telecommunications carriers; interconnect vendors, distributive trades, industry, and institutions are among other clients.

12. INDUSTRIAL RELATIONS

	Communications Equipment	All Manufacturing
Days lost		
- average 1980-82	Data not currently available	
- lost during 1983		
Percent of total time worked (1983):		

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Communications Equipment	All Manufacturing
Peak	4th Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	3rd Q., 1983	3rd Q., 1984

Annual Activity Change ($ million)	Percentage	
1981	9.0	1.0
1982	-2.9	-11.4
1983	4.1	6.0
1984	7.7	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Communications Equipment	All Manufacturing
a. Real production	7.7	8.3
b. Employment	7.2	-3.9
c. Implied productivity (a) less (b)	0.5	12.2
d. Average weekly wages and salaries	9.0	5.0

Real production grew slightly faster than employment during 1984, implying a small productivity gain. This, however, was outstripped by wage gains indicating a rise in unit labour costs for the sector.

CHEMICALS & PRODUCTS

1. SIZE AND STRUCTURE

	Chemicals & Products	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	17,078	7.4
Major sub-sectors as % of sector shipments (1982):		
- Industrial chemicals manufacturers	45.9	
- Miscellaneous chemical industries	14.7	
- Pharmaceutical and medicine manufacturers	10.3	
- Plastic and synthetic resin producers	9.7	
- Soap, cleaning products manufacturing	7.6	
- Paint and varnish manufacturers	5.6	
- Manufacturers of toilet preparations	4.6	
Employment (numbers, 1984):	87,600	5.2
Approximate concentration, top 4 enterprises percent of shipments (1980):	46 est	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	92	96
% of employment:	45	52
% of shipments:	47	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Chemicals & Products	% of All Manufacturing
Atlantic and North	2.5	4.6
Quebec	22.9	25.3
Ontario	59.2	52.7
Prairies	12.0	9.6
British Columbia	3.4	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Chemicals & Products ($ million, 1984)	% of All Manufacturing
Shipments	17,078	7.4
Domestic exports	4,294	5.1
Domestic Shipments	12,784	8.7
Imports*	5,628	6.9
Apparent market*	18,412	8.1

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Chemicals & Products	% of All Manufacturing
Export orientation (1984):	25.1% of shipments	36.2
Import penetration (1984):	30.6% of apparent market	35.4
Major export clients (1983):	United States 65% EEC 14% Other OECD 9% Non OECD 12%	
Major import sources (1983):	United States 76% EEC 14% Other OECD 6% Non OECD 4%	

Major exporters to OECD (1982): Germany, U.S.A., Netherlands, France
Major OECD competitors: United States, France Germany, Brazil

5. INVESTMENT AND PROFITABILITY

	Chemicals & Products ($ million) 1984	Chemicals & Products ($ million) 1985	% of All Manufacturing 1984	% of All Manufacturing 1985
New capital expenditures				
Machinery and equipment	747	748	10.3	8.0
Construction	195	206	10.6	9.9
Total	942	954	10.4	8.3
		Percentage		
Profits as proportion of revenues	4.2	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Allied Canada Inc. (U.S.); Bristol-Myers Canada Inc. (U.S.); Canadian Liquid Air Ltd. (U.S.); Canadian Occidental Petroleum Ltd. (Cdn./U.S.); CIL Inc. (U.K.); Cyanamid Canada Inc. (U.S.); Dow Chemical Canada Inc. (U.S.); Du Pont Canada Inc. (U.S.); ERCO Industries Ltd. (U.S.); Inmont Canada Inc. (U.S.); International Paints (Canada Ltd. (U.K.); Liquid Carbonic Inc. (U.S.); Nutrite Inc. (Belgium); Reichhold Limited (U.S.); Sico Inc. (Cdn.); Union Carbide Canada Ltd. (U.S.).

7. PRODUCTS

Polymerization resins
Petroleum and coal products
Pharmaceuticals
Explosive fuses and caps
Alcohols and derivatives
Sodium hydroxide
Paints (all types)
Metallic salts and peroxy salts
Synthetic detergents
Agricultural chemicals
Nitrogenfunction compounds and urea
Regenerated cellulose film and sheet and ethylene glycol

8. OWNERSHIP

	Percentage of Foreign Control, 1981 Chemicals & Products	% of All Manufacturing
Assets	75.2	44.7
Sales	75.7	49.1
Profits	85.6	51.7

9. TECHNOLOGICAL SITUATION

	Chemicals & Products ($ million)	% of All Manufacturing
Intramural R&D expenditures (1984)	178	8.4
Current outlays	163	8.8
Capital outlays	15	6.0
Persons engaged in R&D :	2950	11.4
R&D Performers (No of firms 1982):	143	15.4
General level of technology :	medium-high	

10. ROLE OF GOVERNMENT

The manufacture and distribution of pharmaceuticals and medicines are regulated through the Department of Health and Welfare. Other chemical products including toxic industrial chemicals are also subject to regulation through Health and Welfare. Various safety and transportation regulations also apply. Currently, Canadian law provides for the licensing of generic equivalents of brand name drugs.

Industrial assistance to new and existing businesses is available through the IRDP. Export assistance is available through PEMD and EDC. In addition, most provinces have a variety of programs to assist industrial development.

11. LINKAGES TO OTHER SECTORS

Main suppliers:		Principal industrial users:	
- industrial chemical producers	33%	- chemical industries	32%
- other chemical producers	10%	- rubber, plastic producers	11%
- fuel, power, utilities	10%	- agriculture	10%
- refineries	9%	- construction industry	9%
- advertising, promotion services	6%	- general overheads (all sectors)	8%

12. INDUSTRIAL RELATIONS

	Chemicals & Products	% of All Manufacturing
Days lost		
- average, 1980-82	23,680	0.8
- lost during 1983	48,670	3.5
Days lost as percent of total time worked (1983):	0.2	0.3

13. GENERAL ACTIVITY CHANGES -1980-84 (Real Output)

Comparative Cyclical Pattern

	Chemicals & Products	% of All Manufacturing
Peak	1st Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery	3rd Q., 1983	4th Q., 1984

Annual Activity Change	Percentage	
1981	0.8	1.0
1982	-8.0	-11.4
1983	9.9	6.0
1984	6.0	8.3

14. LATEST GENERAL PERFORMANCE

	% Change 1984/1983	
	Chemicals & Products ($ million)	% of All Manufacturing
a. Real production	6.0	8.3
b. Employment	0.8	-3.9
c. Implied productivity (a) less (b)	5.2	12.2
d. Average weekly wages and salaries	5.1	5.0

Productivity increases of about 5% were effectively offset by wage increases during 1984. Thus, no real change in unit labour costs was indicated for the sector.

MISCELLANEOUS MANUFACTURING

1. SIZE AND STRUCTURE

	Miscellaneous Manufacturing	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	4,219	1.8
Major sub-sectors as % of sector shipments (1982):		
- Scientific & professional equip. manufacturing	36.7	
- Manufacturing not elsewhere classified	23.5	
- Jewellery and silverware manufacturing	16.7	
- Sporting goods and toy manufacturing	16.2	
- Signs and displays industry	6.9	
Employment (numbers, 1984):	73,400	4.4
Approximate concentration, top 4 enterprises percent of shipments (1980):	46	46

Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):

	Miscellaneous Manufacturing	% of All Manufacturing
% of establishments:	98	96
% of employment:	75	52
% of shipments:	75	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Miscellaneous Manufacturing	All Manufacturing
Atlantic and North	1.5	4.6
Quebec	26.1	25.3
Ontario	65.6	52.7
Prairies	4.2	9.6
British Columbia	2.6	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Miscellaneous Manufacturing ($ millions, 1984)	% of All Manufacturing
Shipments	4,219	1.8
Domestic exports	2,020	2.4
Domestic Shipments	2,199	1.5
Imports*	5,371	6.6
Apparent market*	7,570	3.3

*exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Miscellaneous Manufacturing	% of All Manufacturing
Export orientation (1984):	47.9% of shipments	36.2
Import penetration (1984):	70.9% of apparent market	35.4
Major export clients (1983):	United States 70% EEC 15% Other OECD 6% Non OECD 9%	
Major import sources (1983):	United States 64% Japan 12% EEC 11% Other 13%	

Major exporters to OECD (1982): United States, Germany, Japan, U.K.

5. INVESTMENT AND PROFITABILITY

	Miscellaneous Manufacturing ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	95	124	1.3	1.3
Construction	32	25	1.7	1.2
Total	127	149	1.4	1.3
		Percentage		
Profits as proportion of revenues	3.4	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Aoco Ltd. (U.S.); Atomic Energy of Canada Ltd. (Cdn.); Berol Inc. (U.S.); Canadian Corporate Management Co. Ltd. (Cdn.); Canadian General Tower Ltd. (Cdn.); CCM Inc. (Cdn.);Cooper Canada Ltd. (Cdn.); Fisher Controls Company of Canada Ltd. (U.S.); Honeywell Ltd. (U.S.); Imperial Optical Company Ltd. (Cdn.); ITT Industries of Canada Ltd. (U.S.); Jim Pattison Enterprises Ltd. (Cdn.); Kahn Optical Co. Ltd. (Cdn.); Kodak Canada Inc. (U.S.); Mediacom Inc. (U.S.); Plastic Contact Lens Co. (Canada) Ltd. (U.S.); YKK Canada Inc. (Japan).

7. PRODUCTS

Prescription eyeglasses,
 contact lenses and lenses
Process control equipment
 and related equipment
Wrist watches (battery and non-battery)
Hockey equipment
Temperature regulators and other
 control valves and regulators

Control panels
Dental, optical, surgical & medical instruments
Jewellery (precious and non-precious metal)
Gold and gold alloys; records and tapes
Flow and liquid level instruments
Bicycles

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Miscellaneous Manufacturing ($ millions)	% of All Manufacturing
Assets	40.4	44.7
Sales	43.9	49.1
Profits	52.1	51.7

9. TECHNOLOGICAL SITUATION

	Miscellaneous Manufacturing ($ millions)	% of All Manufacturing
Intramural R&D expenditures (1984)	26	1.2
Current outlays*	24	1.3
Capital outlays*	1	0.4
Persons engaged in R&D* :	405	1.6
R&D Performers (No of firms 1982):	82	8.7

General level of technology :
high (as scientific instrumentation)
through low (as misc. apparel,coverings)

*Covers scientific & professional equipment only

10. ROLE OF GOVERNMENT

Various forms of industrial assistance is available to new and existing businesses as through the IRDP. Provincial governments have a variety of assistance programs available as well. The sector is not expressely regulated.

11. LINKAGES TO OTHER SECTORS

Main suppliers:		Principal industrial users:	
- primary metal producers	14%	- general overheads (all sectors)	26%
- scientific equip. mfgrs.	11%	- miscellaneous manufacturers	17%
- non-ferrous ores, concentrates	10%	- construction industry	11%
- wholesale services	7%	- education, health services	5%
- advertising, promotional serv.	7%	- promotion, advertising serv.	5%
- misc. manufactured products	6%	- textiles industries	5%
- financial, real estate serv.	6%		
- textile and clothing producers	5%		
- rubber and plastics producers	5%		

12. INDUSTRIAL RELATIONS

	Miscellaneous Manufacturing	% of All Manufacturing
Days lost		
- average, 1980-82	29,510	0.9
- lost during 1983	18,850	1.4
Days lost as percent of total time worked (1983):	0.1	0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output) Comparative Cyclical Pattern

	Miscellaneous Manufacturing	% of All Manufacturing
Peak	3rd Q., 1981	2nd Q., 1981
Trough	3rd Q., 1982	4th Q., 1982
Recovery remained below peak	4th Q., 1984	

Annual Activity Change	Percentage	
1981	1.8	1.0
1982	-10.6	-11.4
1983	1.5	6.0
1984	0.5	8.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Miscellaneous Manufacturing	AllManufacturing
a. Real production	0.5	8.3
b. Employment	-5.2	-3.9
c. Implied productivity (a) less (b)	5.7	12.2
d. Average weekly wages and salaries	4.9	5.0

Maintenance of real production while decreasing employment resulted in productivity increases of nearly 6% in 1984. With wages advancing by 5%, a small reduction in unit labour costs was achieved.

NON-METALLIC MINERAL PRODUCTS

1. SIZE AND STRUCTURE

	Non-Metallic Mineral Products	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	5,233	2.3
Major sub-sectors as % of sector shipments (1982):		
- Ready-mix concrete producers	22.6	
- Glass, glass products manufacturing	19.5	
- Misc. non-metallic mineral products	17.1	
- Cement manufacturers	14.6	
- Concrete products manufacturers	13.9	
- Abrasives manufacturers	4.2	
- Clay products manufacturers	3.6	
- Lime manufacturers	2.8	
- Stone products manufacturers	1.6	
Employment (numbers, 1984):	45,800	2.7
Approximate concentration, top 4 enterprises percent of shipments (1980):	64	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	97	96
% of employment:	84	52
% of shipments:	79	41

* Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984)	
	Non-Metallic Mineral Products	% of All Manufacturing
Atlantic and North	3.8	4.6
Quebec	23.9	29.3
Ontario	49.3	52.7
Prairies	14.3	9.6
British Columbia	8.7	7.8
CANADA	100.0	100.0

3. APPARENT MARKET

	Non-Metallic Mineral Products ($ millions, 1984)	% of All Manufacturing
Shipments	5,233	2.3
Domestic exports	718	0.9
Domestic Shipments	4,515	6.2
Imports*	1,059	1.3
Apparent market*	5,574	2.4

* exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Non-Metallic Mineral Products	% of All Manufacturing
Export orientation (1984):	13.7% of shipments	36.2
Import penetration (1984):	19.0% of apparent market	35.4
Major export clients (1983):	United States 89% Non OECD 6% EEC 3% Other OECD 2%	
Major import sources (1983):	United States 64% EEC 21% Other OECD 9% Non OECD 6%	
Major exporters to OECD (1982):	Germany, U.K., Belgium, Italy	

5. INVESTMENT AND PROFITABILITY

	Non-Metallic Mineral Products ($ millions)		% of All Manufacturing	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	156	219	2.2	2.3
Construction	22	29	1.2	1.4
Total	178	248	2.0	2.2
		Percentage		
Profits as proportion of revenues	5.2	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Baton Provincial Ltée (Cdn.); Canada Cement Lafarge Ltd. (U.S.); Canfarge Ltd. (France); Consumers Glass Company Ltd. (U.S./Canada); Domglas Inc. (Cdn.); Domtar Inc. (Cdn.); Genstar Ltd. (Cdn.); Ocean Construction Supplies Ltd. (Belgium); Pilkington Glass Industries Ltd. (U.K.); Revelstoke Companies Ltd. (Cdn.) St. Lawrence Cement Inc. (Switz.); St. Mary's Cement Ltd. (Cdn.); Standard Industries Ltd. (France).

7. PRODUCTS

Concrete, ready mix; cement (all types).

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Non-Metallic Mineral Products	% of All Manufacturing
Assets	68.7	44.7
Sales	58.7	49.1
Profits	74.0	51.7

9. TECHNOLOGICAL SITUATION

	Non-Metallic Mineral Products ($ millions)	% of All Manufacturing
Intramural R&D expenditures (1984)	13	0.6
Current outlays	12	0.6
Capital outlays	1	0.4
Persons engaged in R&D :	225	0.9
R&D Performers (No of firms 1982):	21	2.3
General level of technology :	low	

10. ROLE OF GOVERNMENT

There is little government regulation of the sector. However, foreign aid through CIDA can often develop new markets for Canadian manufactured non-metallic mineral products. Industrial assistance to new and existing businesses is available through the IRDP. Export assistance is available from PEMD and EDC. The provincial governments have a variety of assistance programs to new and existing business.

11. LINKAGES TO OTHER SECTORS

Main suppliers:

- producers of non-metallic mineral products	23%
- fuels and power	18%
- general overheads (all sectors)	13%
- non-metallic mineral producers	11%
- industrial, other chemicals	6%
- transportation services	6%

Principal industrial users:

- construction industry	59%
- producers of non-metallic mineral products	13%
- food and beverage sector	6%
- transportation equipment	5%

12. INDUSTRIAL RELATIONS

	Non-Metallic Mineral Products	% of All Manufacturing
Days lost		
- average, 1980-82	112,920	3.6
- lost during 1983	30,470	2.2
Days lost as percent of total time worked (1983):	0.3	0.3

13. LATEST GENERAL PERFORMANCE

	% Change 1984/1983	
	Non-Metallic Mineral Products ($ millions)	% of All Manufacturing
a. Real production	7.6	8.3
b. Employment	0.6	-3.9
c. Implied productivity (a) less (b)	7.0	12.2
d. Average weekly wages and salaries	5.1	5.0

Productivity, basically driven by real production gains rather than employment, rose by some 7% for the sector during 1984. Wages increased by about 5%, indicating that reductions in unit labour costs were limited to about 2%.

14. CYLICAL PATTERN - RESPONSE TO 1982 RECESSION (Real Output)

Comparative Cyclycal Pattern

	Non-Metallic Mineral Products	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	4th Q., 1982	4th Q., 1982
Recovery remained below peak		4th Q., 1984

Annual Percentage Change	Percentage	
1981	-2.4	1.0
1982	-19.2	-11.4
1983	6.5	6.0
1984	7.6	8.3

PETROLEUM & COAL PRODUCTS

1. SIZE AND STRUCTURE

	Petroleum & Coal Products	% of All Manufacturing
Estimated shipments ($ millions, 1984)*:	23,684	10.2
Major sub-sectors as % of sector shipments (1982):		
- Petroleum refining	99.3	
- Miscellaneous petroleum, coal products	0.7	
Employment (numbers, 1984):	22,400	1.3
Approximate concentration, top 4 enterprises percent of shipments (1980):	62	
Share of manufacturing activity by medium and smaller production units (under 200 employees, 1982):		
% of establishments:	81	96
% of employment:	23	52
% of shipments:	17	41

*Published survey data adjusted for more recent reference year

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Shipments, (1984) Petroleum & Coal Products	% of All Manufacturing
Quebec	25.5	25.3
Ontario	35.9	52.7
Prairies	8.9	5.3
British Columbia	13.3	7.8
Other provinces, North	16.4	8.9
CANADA	100.0	100.0

3. APPARENT MARKET

	Petroleum & Coal Products ($ millions, 1984)	% of All Manufacturing
Shipments	23,684	10.2
Domestic exports	2,094	2.3
Domestic Shipments	21,590	14.6
Imports*	1,512	1.9
Apparent market*	23,102	10.1

* exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Petroleum & Coal Products	% of All Manufacturing
Export orientation (1984):	8.8% of shipments	36.2
Import penetration (1984):	6.5% of apparent market	35.4
Major export clients (1983)	United States 97% EEC 1% Japan 1% Non OECD 1%	
M. jor import sources (1983)	United States 56% EEC 7% Other OECD 2% Non OECD 35%	
Major exporters to OECD (1982):	Saudi Arabia, U.S.S.R., U.K., Netherlands	

5. INVESTMENT AND PROFITABILITY

	Petroleum & Coal Products 1984	Petroleum & Coal Products 1985	% of All Manufacturing 1984	% of All Manufacturing 1985
	($ millions)			
New capital expenditures				
Machinery and equipment	137	129	1.9	1.4
Construction	399	358	21.7	17.1
Total	536	487	5.9	4.2
	Percentage			
Profits as proportion of revenues	4.6	n/a	3.8	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

B.P. Oil Ltd. (U.K.); Gulf Canada Ltd. (U.S.); Imperial Oil Ltd. (U.S.); Petro Canada, (Cdn.); Shell Canada Ltd. (Netherlands); Texaco Canada Inc. (U.S.); Turbo Resources Ltd. (Cdn.).

7. PRODUCTS

Motor gasoline
Light fuel oils
Aviation fuel
Asphalt
Butane
Diesel fuel
Heavy fuel oils
Kerosene stove oil
Liquified petroleum gases
Lubricating oils

8. OWNERSHIP

Percentage of Foreign Control, 1981

	Petroleum & Coal Products	% of All Manufacturing
Assets*	60.5	44.7
Sales*	78.0	49.1
Profits*	73.0	51.7

*includes primary sector operations of integrated oil companies.

9. TECHNOLOGICAL SITUATION

	Petroleum & Coal Products ($ millions)	% of All Manufacturing
Intramural R&D expenditures (1984)	189	9.0
Current outlays	155	8.4
Capital outlays	34	13.6
Persons engaged in R&D :	1335	5.2
R&D Performers (No of firms 1982):	12	1.3

General level of technology : varied, synthetic fuels development, through to established refining technology.

10. ROLE OF GOVERNMENT

Direct involvement: Industrial assistance to new and existing business is available through the IRDP and a variety of provincial programs.

Indirect involvement: The export of natural gas and long term exports of petroleum products is regulated by the National Energy Board as is the building of interprovincial pipelines that transport oil and gas products.

11. LINKAGES TO OTHER SECTORS

Main suppliers:	
- Coal, oil, gas producers	87%
- Pipeline transportation	3%

Principal industrial users:	
- Transportation services	22%
- Construction industry	10%
- Agriculture	8%
- Chemical Industries	8%
- Mines	6%
- Pulp and Paper industry	6%

12. INDUSTRIAL RELATIONS

	Petroleum & Coal Products	% of All Manufacturing
Days lost		
- average, 1980-82	42,940	1.4
- lost during 1983		
Days lost as percent of total time worked (1983):		0.3

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern

	Petroleum & Coal Products	% of All Manufacturing
Peak	2nd Q., 1981	2nd Q., 1981
Trough	2nd Q., 1982	4th Q., 1982
Recovery	remained below peak	4th Q., 1984

Annual Activity Change	percentage	
1981	1.9	1.0
1982	-15.4	-11.4
1983	-3.3	6.0
1984	1.8	8.3

14. LATEST GENERAL PERFORMANCE

% Change 1984/1983

	Petroleum & Coal Products	% of All Manufacturing
a. Real production	1.8	8.3
b. Employment	-5.1	-3.9
c. Implied productivity (a) less (b)	6.9	12.2
d. Average weekly wages and salaries	5.8	5.0

Gains in productivity in 1984 were achieved as the results of maintaining production while reducing employment. However, only modest increases in unit labour costs were achieved since wages rose nearly as rapidly as productivity.

MINERAL FUELS

1. SIZE AND STRUCTURE

	Mineral Fuels	% of All Mining
Value of production ($ millions, 1984):	30,000	73.6
Major fuels as % of production value (1984):		
- Crude petroleum	59.7	
- Natural gas	25.0	
- Natural gas by-products	9.3	
- Coal	6.0	
Employment (numbers, 1984):	53,700	36.1
Approximate concentration, top 4 enterprises percent of sales (1980):	32 est	

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Production Value, (1984)	
	Mineral Fuels	All Mining
Atlantic and North	0.8	6.9
Quebec	-	3.7
Ontario	0.2	8.8
Manitoba and Saskatchewan	9.0	10.9
Alberta	83.7	62.0
British Columbia	6.3	7.7
CANADA	100.0	100.0

3. APPARENT MARKET

	Mineral Fuels ($ millions, 1984)	% of All Mining
Value of production	30,000	73.6
Domestic exports	12,394	67.5
Domestic shipments	17,606	77.2
Imports*	4,605	70.7
Apparent market*	22,211	75.5

*exclusive of re-exports brought into the country, but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Mineral Fuels	% of All Mining
Export orientation (1984):	41% of production value	42
Import penetration (1984):	35% of apparent market value	22
Major export clients (1984):	United States 82% Japan 13% Other 5%	
Major import sources (1984):	United States 36% Other America 33% Other 31%	

Major exporters to OECD (1982): Saudi Arabia, USSR, U.K., Indonesia, Nigeria

5. INVESTMENT AND PROFITABILITY

	Mineral Fuels ($ millions)		% of All Mining	
	1984	1985	1984	1985
New capital expenditures*				
Machinery and equipment	1061	1211	64.2	61.9
Construction	6898	7863	86.2	86.5
Total	7960	9074	82.5	82.1
		Percentage		
Profits as percentage of revenues	2.2	n/a	7.5	n/a

*excludes coal

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Amoco Canada Petroleum Co. Ltd. (U.S.); Chevron Canada Resources Ltd. (U.S.); Dome Petroleum Ltd. (Cdn); Esso Resources Canada Ltd. (U.S.); Gulf Canada Ltd. (U.S.); Mobil Oil Canada Ltd. (U.S.); PanCanadian Petroleum Ltd. (Cdn); Petro-Canada (Cdn); Shell Canada Ltd. (Netherlands/U.K.); Texaco Canada Ltd. Inc. (U.S.)

7. PRODUCTS

Crude oil
Natural gas
Synthetic crude oil
Ethane
Thermal coal
Pentanes plus
Butane
Propane
Coking coal

Coal

Cape Breton Development Corp. (Cdn); Cardinal River Coals (U.S.); Crows Nest Resources Ltd (Netherlands/U.K.); Esso Minerals Canada (U.S.); Fording Coal (Cdn); Quintette Coal Ltd. (Cdn); Smoky River Coal Ltd. (U.S.); Teck Corporations (Cdn); Westar Mining Ltd. (Cdn/Japan)

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Mineral Fuels	All Mining
Assets*	43.1	37.7
Sales*	58.4	49.3
Profits*	60.5	50.7

*Excludes operations of integrated oil companies - see Petroleum and Coal Products industry.

9. TECHNOLOGICAL SITUATION

	Mineral Fuels ($ million)	% of All Mining
Intramural R&D Expenditures (1984)*	137	7.2
Current outlays	111	73.0
Capital outlays	21	75.0
Persons engaged in R&D (1982)*	795	55.0
R&D Performers (No of firms 1982):	11	26.8

General level of technology : Largely established

*Gas and oil wells only

10. ROLE OF GOVERNMENT

The provincial and federal governments own almost all of the mineral rights within their jurisdictions and provide exploration leases, and development permits and licences for the extraction of mineral fuels. Provincial governments charge royalties on the production of oil and gas within their jurisdiction. In conjunction with the provincial governments, the federal government, through Mineral Development Agreements fund geoscientific work (mapping and surveys) which assist industry. The federal government, through Petro Canada, is also active in the exploration, development, refining and marketing of mineral fuels in Canada. Some provincial governments own minority invests in mineral fuel companys. The National Energy Board controls the export of mineral fuels. Provincial governents regulate production and distribution of mineral fuels within their borders.

11. LINKAGES TO OTHER SECTORS

Main suppliers		Principal industrial users	
- financial, related supplies	64%	- petroleum refiners	84%
- construction repair services	8%	- primary metal producers	4%
- mining services	7%	- power utilities	4%
- site overhead, related supplies	7%		
- business services	6%		

12. INDUSTRIAL RELATIONS

	Mineral Fuels	% of All Mining
Days lost		
- average, 1980-83	136,937	32.7
- lost during 1983	80,950	45.4

	Percentage	
Days lost as proportion of total time worked (1983):	0.6	0.5

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Mineral Fuels	All Mining
Peaked	2nd Q., 1981	2nd Q., 1981
Troughed	2nd Q., 1982	3rd Q., 1982
Recovered	1st Q., 1984*	3rd Q., 1984*

*very nearly equal to previous peak

Annual Activity Change	Percentage	
1981	-6.4	6.3
1982	-0.2	-10.9
1983	2.7	3.8
1984	8.0	12.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Mineral Fuels	All Mining
a. Real production	8.0	12.3
b. Employment	1.7	0.1
c. Implied productivity (a) less (b)	6.3	12.2
d. Average weekly wages and salaries	5.3	6.2

Productivity gains for the sector were somewhat greater in 1984 than the gain in wages, indicating a modest drop in unit labour costs. Comparable performance for the mining sector was stronger, largely owing to the greater productivity gain which arose as real output advanced by over 12% and employment remained virtually flat.

METAL MINES

1. SIZE AND STRUCTURE

	Metal Mines	% of All Mining
Value of production ($ millions, 1984):	8,513	20.3
Major minerals as % of production value (1984):		
- Iron ore	17.3	
- Zinc	16.9	
- Copper	15.9	
- Gold	14.4	
- Nickel	13.7	
- Uranium	10.8	
Employment (numbers, 1984):	50,100	33.7
Approximate concentration, top 4 enterprises percent of sales (1980):	50 est	

2. GEOGRAPHICAL DISTRIBUTION OF INDUSTRY

	Percentage Distribution of Production Value, (1984)	
	Metal Mines	All Mining
Atlantic	16.5	4.0
Quebec	13.5	3.7
Ontario	39.0	8.8
Prairies	10.2	72.9
British Columbia	12.9	7.7
North	7.9	2.9
CANADA	100.0	100.0

3. APPARENT MARKET

	Metal Mines ($ millions, 1984)	% of All Mining
Value of production	8,513	20.3
Domestic exports	2,901	15.8
Domestic shipments	5,612	24.6
Imports*	1,595	24.5
Apparent market*	7,207	24.5

*exclusive of re-exports brought into the country but not entering the Canadian consumption stream.

4. EXTERNAL TRADE

	Metal Mines	% of All Mining
Export orientation (1984):	32% of shipments	42
Import penetration (1984):	22% of apparent market	22
Major export clients (1984):	United States 37% EEC 31% Japan 15% Other 17%	
Major import sources (1984):	United States 61% Other OECD 18% Other America 16% Other 5%	
Major exporters to OECD (1982):	Australia, United States, Brazil, South Africa	

5. INVESTMENT AND PROFITABILITY

	Metal Mines ($ millions)		% of All Mining	
	1984	1985	1984	1985
New capital expenditures				
Machinery and equipment	362	472	21.9	24.1
Construction	937	1096	11.7	12.1
Total	1299	1568	13.5	14.2
	Percentage			
Profits as proportion of revenues	4.2	n/a	7.5	n/a

6. MAJOR FIRMS AND COUNTRY OF CONTROL:

Alcan Aluminium (Cdn/US); Bethlehem Copper Corp. (U.S.); Brunswick Mining and Smelting Corp. (Cdn); Cominco Ltd. (Cdn); Falconbridge Ltd. (U.S.); Gibraltar Mines Ltd. (Cdn); Inco Ltd. (Cdn); Kidd Creek Mines Ltd. (Cdn); Lornex Mining Corporation Ltd. (U.K.); Nemont Mines Ltd. (Cdn); Noranda Inc. (Cdn); Placer Development Ltd. (Cdn); Sheritt Gordon Mines Ltd. (Cdn); Utah Mines Ltd. (U.S.).

7. PRODUCTS

Copper
Gold
Iron Ore
Zinc
Uranium
Nickel
Silver
Lead
Molybdenum

8. OWNERSHIP

	Percentage of Foreign Control, 1981	
	Metal Mines	All Mining
Assets	28.2	37.7
Sales	36.5	49.3
Profits	22.0	50.7

9. TECHNOLOGICAL SITUATION

	Metal Mines	% of All Mining
R&D Performers (No of firms 1982):	11	26.8
General level of technology:	Largely established	

10. ROLE OF GOVERNMENT

Direct involvement:	For the most part the mineral rights of all land in Canada are owned by the provincial or federal governments in their respective jurisdictions. Thus exploration and development requires government permits and the payment of royalties. The federal government undertakes an active program of mapping and geological surveys and has negotiated Mineral Development Agreements with the provinces to fund geoscientific work. The federal government owns Kidd Creek Mines, a large producer of lead, zinc and copper.
Indirect involvement:	Government control of minesite development is exerted through water permits and export permits. Uranium exports are controlled by government permit, and the nuclear industry, as customers of uranium, is subject to government control.

11. LINKAGES TO OTHER SECTORS

Main suppliers	
- site overhead and related supplies	25%
- mining services	15%
- fuels and chemical products	10%
- financial, real estate services	8%
- electrical power	6%

Principal industrial users	
- primary metal industries	77%
- metal fabricators	16%
- miscellaneous manufacturers	4%

12. INDUSTRIAL RELATIONS

	Metal Mines	% of All Mining
Days lost		
- average, 1980-83	228,933	54.7
- lost during 1983	91,500	51.3

	Percentage	
Days lost as proportion of total time worked (1983):	0.7	0.5

13. GENERAL ACTIVITY CHANGES - 1980-84 (Real Output)

Comparative Cyclical Pattern	Metal Mines	All Mining
Peak	1st Q., 1981	2nd Q., 1981
Trough	3rd Q., 1982	3rd Q., 1982
Recovery	3rd Q., 1984*	3rd Q., 1984*

*very nearly equal to previous peak

Annual Activity Change	Percentage	
1981	1.9	6.3
1982	-8.9	-10.9
1983	-9.7	3.8
1984	15.9	12.3

14. LATEST GENERAL PERFORMANCE

	% change 1984/83	
	Metal Mines	All Mining
a. Real production	15.9	12.3
b. Employment	-2.5	0.1
c. Implied productivity (a) less (b)	18.4	12.2
d. Average weekly wages and salaries	7.3	6.2

Productivity for metal mines grew strongly in 1984 as real output climbed and employment fell. Wage gains, somewhat above average for the mining sector, were exceeded by productivity gains, implying a noticeable decrease in unit labour costs for the sector.

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TRADE

1. TRADE AND ECONOMIC GROWTH

As a leading trading nation, Canada has a policy commitment to an open, multilateral trading system. Exports contribute more significantly to Canada's economic well being than to the economies of many other Western industrialized countries. More than 3 million Canadian jobs depend upon exports. In the manufacturing sector alone, upwards of 1.2 million people are employed directly or indirectly in export activity.

As Figure 1 shows, among the Economic Summit countries, only West Germany is more reliant on exports. As a percentage of Gross National Product (GNP), exports are more than four times larger in Canada than in the United States, and nearly two times larger than in Japan.

TABLE 1

GROWTH OF CANADIAN FOREIGN TRADE*

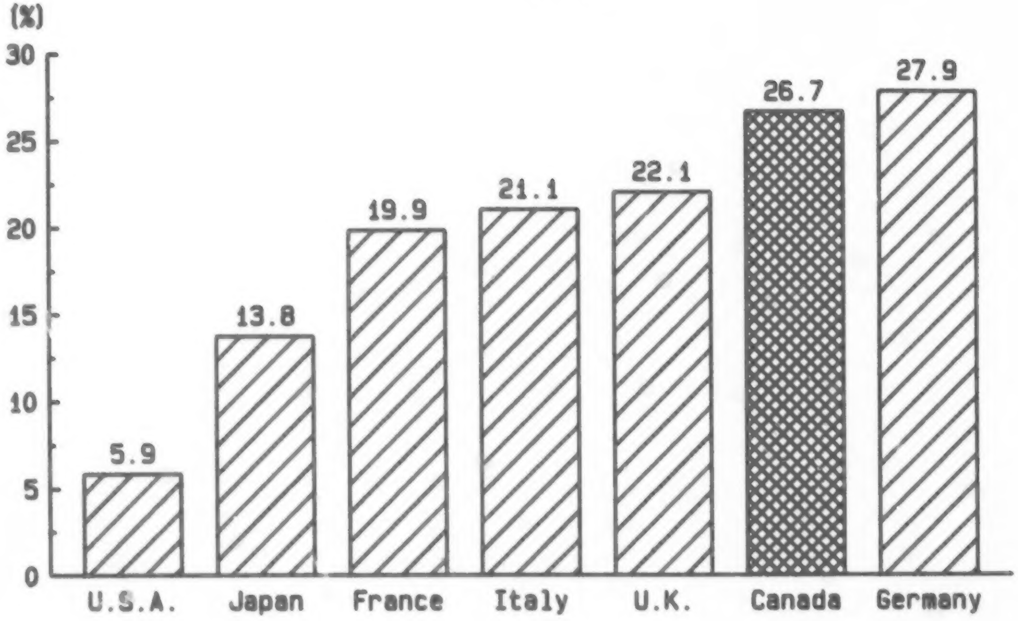
(balance of payments basis)

Year	Imports	Exports* ($ billion)	Total Value		Balance
1975	33.9	33.5	67.4		-0.5
1976	36.6	38.1	74.7		1.6
1977	41.5	44.5	131.1		3.0
1978	49.0	53.4	102.4		4.3
1979	61.2	65.5	126.7		4.4
1980	67.9	76.6	144.5		8.8
1981	77.1	84.5	161.6		7.3
1982	66.7	84.5	151.2	- 6% change	17.8
1983	73.1	90.8	163.9	+ 8% change	17.7
1984	91.5	112.1	203.6	+ 24% change	20.7
1985**	103.6	120.5	224.1	+ 10% change	16.9
Average Annual Growth Rate (%)	11.8	13.7	12.8		

* Includes re-exports.
** 11 months annualized.

Source: Bank of Canada Review.

Exports as % of GNP
Selected OECD Countries
1984



Source: OECD Main Economic
Indicators, May 1985.

2. TRADE PERFORMANCE

Canada's trade performance has continued to improve with the economic recovery that began following the 1982 recession. The figures in Table 1 indicate that from 1983 to 1985 the country's total trade increased rapidly, at an average yearly rate of 17 percent. Over a rather longer time period, the faster rise in exports (13.7 percent annually, 1975-85) compared to imports (11.8 percent) has permitted Canada to enjoy a positive balance of trade, with considerable trade surpluses posted from 1982 onward. As a result of better performance, Canada's share of world export trade, which dropped between 1970-80 from 5 percent to 3 percent, increased to 4 percent in 1983. As Table 2 shows, Canada's share reached 4.4 percent in 1984. During the first half of 1985, Canada's share of world exports rose to 4.8 percent

Canada's recent trade performance can be attributed to a number of factors. Productivity has continued to rise following the recession and Canada's unit labour costs compare very favourably with those of the U.S., Canada's principal trading partner. Wage rates in Canada, once translated into U.S. dollars, often result in favourable wage comparisons. This places many Canadian producers in an advantageous position in the U.S. market, and Canadian external sales as a whole, have shifted more towards that market.

TABLE 2

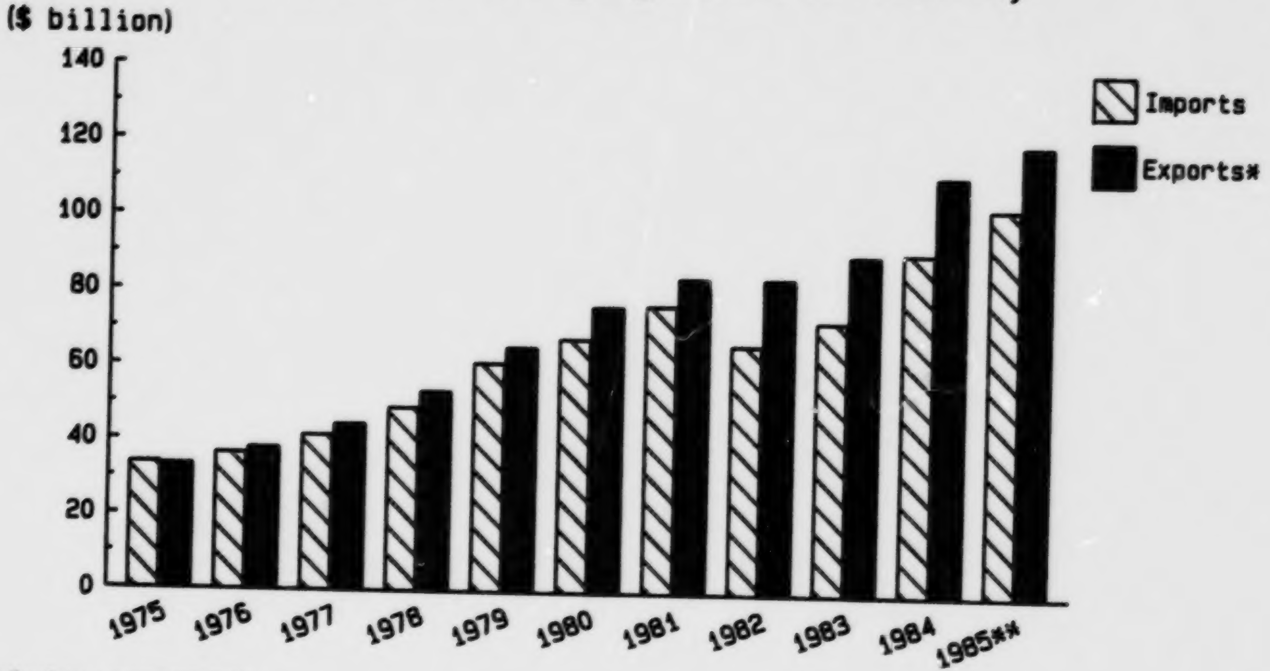
SHARES OF WORLD EXPORTS - SELECTED INDUSTRIAL COUNTRIES (PERCENT)

					$ billion U.S. (FOB basis)	
	1970	1980	1984	Jan. - June 1985	1984	Jan.-June 1985
Canada	5.2	3.2	4.4	4.8	85	44.2
United States	13.6	10.7	11.0	11.9	210	110.5
Japan	6.2	6.5	8.9	8.8	170	81.9
Germany	11.0	9.7	8.6	9.1	164	84.5
France	5.7	5.6	4.9	5.0	93	46.1
United Kingdom	6.2	5.5	4.9	5.2	95	48.7
Switzerland	1.7	1.5	1.3	1.3	25	12.4
World	100.0	100.0	100.0	100.0	1,917	926.7

Source: United Nations, Yearbook of International Trade Statistics, 1981,

Monthly Bulletin of Statistics, December 1985.

Growth of Canadian Foriegn Trade
(balance of payments basis)



* Includes re-exports
** 11 months annualized
Source: Bank of Canada Review.

Another factor improving Canada's trade performance has been increased private sector initiatives as well as government programs which stimulate exports. On the private sector side, business associations such as the Canadian Manufacturers Association, the Canadian Chamber of Commerce, and the Canadian Export Association have been increasingly active in promoting exports and trade missions. Sector associations such as the Electrical and Electronics Manufacturing Association of Canada and Association of Consulting Engineers of Canada, have also been involved in these promotions. Many new regional and bilateral business councils have emerged to promote initiatives with business counterparts in other countries. (See Appendix I - Trade Councils).

Finally, the Canadian provinces have stepped up trade promotion activities through increased trade representation abroad and financial assistance programs.

3. TRADE STRUCTURE

3.1 Export Composition

The composition of Canada's trade has undergone a number of changes in the past ten years. The leading sources of growth since 1975 - all increasing at average annual rates of 18-20 percent - have been transportation equipment, communications and related equipment, chemicals and refined petroleum. Together these export categories make up nearly 45 percent of the country's external merchandise sales, compared to just over 30 percent in 1975.

Clearly, the major influence has been the transportation equipment sector, rising from 22.5 percent of exports in 1975 to 31.4 percent in 1985 (see Table 3). Though this category of exports declined in the late 1970's and early 1980's with the downturn in the North American auto industry, it rebounded to even higher levels with recovery of the industry in the post-1982 period. These high levels of exports are made possible and reinforced by the Canada-U.S. autopact, which guarantees Canadian built cars access to the U.S. market.

Major exports of transportation equipment include: passenger autos and chassis; trucks; motor vehicle engines and engine parts; other motor vehicle parts, except engines; aircraft engines and engine parts; and other aircraft parts.

Wood and paper products are the second most important group of exports, representing 13.5 percent of total 1985 exports. Stable in the past decade, this category grew at an average 12.2 percent per year between 1975 and 1985, slightly below the rate for overall exports of 13.6 percent. Major wood and paper products, include lumber, wood pulp and newsprint, which have been facing increased global competition and protectionism.

Oil, gas and coal, at 10.2 percent of overall exports, have shown an average annual growth of 10.0 percent since 1975. Food, feed, beverages and tobacco, the fourth major group of exports, accounted for 7.8 percent of all exports in 1985. Annual growth averaged 8.6 percent over the 1975-85 period. Meat, fish, barley and wheat represent the most important commodities under this category of exports.

Chemicals registered an average annual growth rate of 18.6 percent and in so doing jumped from a share of 3.1 percent to 4.7 percent of total exports, between 1975-1985. Major chemical exports include chemical elements, organic and inorganic chemicals, fertilizers and synthetic rubber.

3.2 Import Composition

Canada's imports are less concentrated than its exports. The ten major import categories (see Table 4) make up 78 percent of the value of all imports whereas the comparable figure for exports is 87 percent. Transportation equipment is nevertheless the dominant category in imports and exports alike. With the recovery of the North American auto industry, this segment of national imports rose from 23.7 percent in 1980 to 29.8 percent by 1983, surpassing the 1975 level of 28 percent and equalling the peak share of 1977. Major imports of transportation equipment include: passenger autos, trucks, motor vehicle engines, motor vehicle engine parts, and other motor vehicle parts.

Communications and computer equipment imports grew strongly (21.6 percent per year on average, 1975-85) to reach an 8.0 percent show of total imports by 1985. Some easing in levels occurred in 1985. Major items in this category include electronic computers, telecommunications and related equipment and electronic tubes and semiconductors. Another grouping of industrial equipment, including electrical industrial equipment, navigation equipment and instrumentation, increased at the same rate (11.8 percent) as total imports and occupies a share of 6.6 percent.

Food and beverage products declined in relative importance over the decade though important elements are non-indigenous (e.g. coffee, tropical fruit).

Chemicals - organic, inorganic and plastics - also occupy an approximate 5 percent share of total imports, and advanced at an average rate of growth of 13.9 percent annually.

A range of metals, which experienced above-average gains over the 1975-85 period; together with textiles, clothing and footwear (above average gains), and machinery, oil and coal (below average growth) round out the major import categories.

TABLE 3

PRINCIPAL CANADIAN EXPORTS

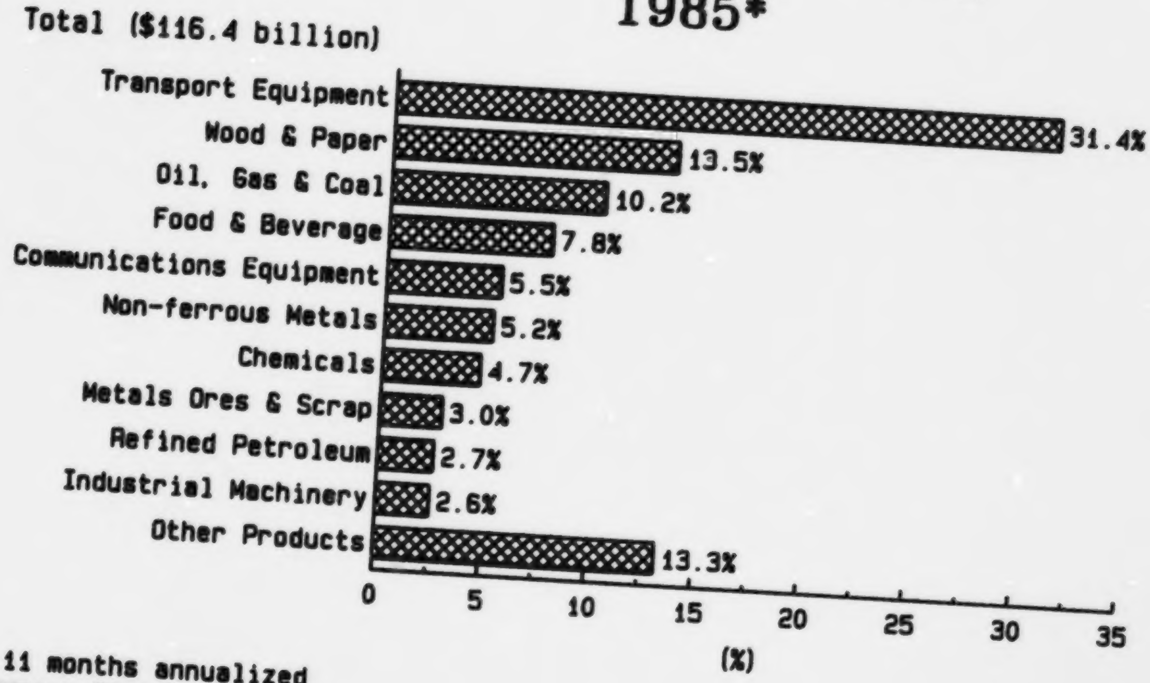
(Customs Basis)
($ billions and % distribution)

Commodity Group	1975		1980		1984		1985*		Change	Average Annual Growth Rate, 75-85(%)
	Value	%	Value	%	Value	%	Value	%	1984-85	
Transportation Equipment	7.3	22.5	13.4	18.0	32.3	29.5	36.5	31.4	13.0	17.5
Wood & Paper	5.0	15.4	12.5	16.8	15.2	13.9	15.8	13.5	3.9	12.2
Oil, Gas & Coal	4.6	14.2	7.8	10.5	10.1	9.2	11.9	10.2	17.8	10.0
Food, Feed, Beverages & Tobacco	4.0	12.3	8.0	10.8	10.3	9.4	9.1	7.8	-11.6	8.6
Communications and Other Equipment	1.0	3.1	3.0	4.0	6.0	5.4	6.4	5.5	6.7	20.4
Non-ferrous Metals	1.7	5.2	6.1	8.2	6.3	5.8	6.0	5.2	-4.8	13.4
Chemicals	1.0	3.1	4.1	5.5	5.3	4.8	5.5	4.7	3.8	18.6
Metal Ores, Concentrates & Scrap	2.3	7.1	4.2	5.6	3.7	3.3	3.5	3.0	-5.4	4.3
Refined Petroleum	0.6	1.8	2.3	3.1	3.2	2.9	3.2	2.7	-	18.2
Industrial Machinery	0.9	2.8	2.2	3.0	2.8	2.6	3.0	2.6	7.1	12.8
Other Products	4.1	12.6	10.8	14.5	14.3	13.1	15.5	13.3	8.4	14.2
Total Domestic Exports	32.5	100.0	74.4	100.0	109.5	100.0	116.4	100.0	6.3	13.6
Re-Exports	0.8		1.7		3.0		3.3		10.0	15.2
Total Exports	33.3		76.2		112.5		119.7		6.4	13.7

* 11 months annualized.

Source: Statistics Canada, Summary of Canadian International Trade.

Principal Canadian Exports by Commodity Group 1985*



* 11 months annualized
Source: Statistics Canada,
Summary of Canadian International Trade.

4. DIRECTION OF TRADE

Canada's trade links are dominated by a bilateral relationship with the U.S. In 1985, two-way trade totalled almost $167 billion. As a result of earlier GATT rounds, some 80 percent of Canadian exports to the U.S. and 65 percent of U.S. exports to Canada, will be duty free. Table 6 shows that the U.S. accounted for 78.3 percent of Canada's exports and 71.4 percent of its imports and is thus by far Canada's most important trading partner. Similarly, Canada remains the U.S.'s most important trading partner, accounting in 1984, for 21.4 percent of its total exports. By comparison, U.S. exports to Japan, its next most important market, were $23.6 billion, or 50.6 percent of the value of exports to Canada.

Table 5 also indicates a $15.6 billion trade surplus with the U.S. in 1985. This continues a trend in which Canada has traditionally had a favourable merchandise trade balance with the U.S. This has been more than offset by large (and growing) deficits in service transactions, reflecting mainly interest and dividends, tourism, and royalties. The overall deficits on current account have, in turn, traditionally been offset, in part, by surpluses on long-term capital transactions. However, this situation changed markedly in 1981, when long-term capital outflows exceeded inflows, primarily as a result of take-over activity in the energy sector.

Japan is Canada's next most important trading partner, accounting for 4.9 percent of all exports and a source for 5.8 percent of total imports. The bilateral exchange of goods is built heavily on a traditional complementarity between resource supplier and resource-poor industrial giant. Fully 40 percent and 45 percent of Canada's exports are raw or semi-processed products respectively, while almost all of Japan's exports to Canada are fully manufactured. This make-up is reflected in the regional prominence of Western Canada, which accounts for almost two-thirds of exports and receives most of the direct benefit; Central Canada, by contrast, accounts for only 12 percent of our exports and over half of Japanese imports, resulting in a frequently critical view of relations, especially as regards the immense bilateral deficit in trade in manufactured products ($1.4 billion in 1981). While overall trade with Japan has been historically in Canada's favour, in 1985 Canada registered a slight deficit of $0.4 billion.

Canada's third largest trading partner is the U.K., receiving 2.1 percent of the country's total exports and providing 3.0 percent of all its imports during 1985. During the same year, Canada enjoyed a small trade surplus of $0.8 billion on the exchange of goods in this bilateral relationship. The USSR follows as Canada's next most important trading partner, accounting for 1.4 percent of exports and 0.03 percent of imports. Canada continues to possess a small positive trade balance because of the large amount of wheat exports it delivers to the USSR.

TABLE 4

PRINCIPAL CANADIAN IMPORTS

(Customs Basis)
($ billions and % distribution)

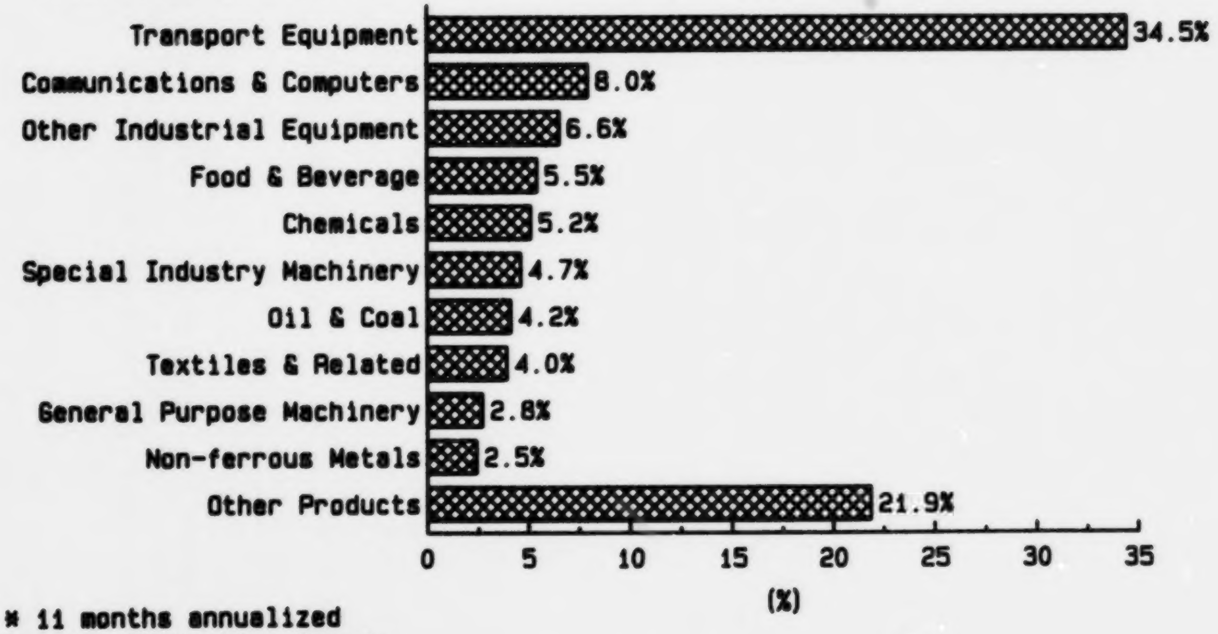
Commodity Group	1975 Value	%	1980 Value	%	1984 Value	%	1985* Value	%	Change 1984-85	Annual Average Growth Rate, 75-85(%)
Transportation Equipment	9.5	27.4	16.4	23.7	30.2	31.5	36.5	34.5	20.9	14.4
Communications & Computers	1.2	3.4	3.9	5.6	8.8	9.2	8.5	8.0	-3.4	21.6
Other Industrial Equipment	2.3	6.6	4.2	6.0	6.3	6.6	7.0	6.6	11.1	11.8
Food, Feed, Beverages & Tobacco	2.6	7.5	4.7	6.8	5.8	6.0	5.8	5.5	-	8.4
Chemicals	1.5	4.3	3.4	4.9	5.2	5.4	5.5	5.2	5.8	13.9
Special Industry Machinery	1.9	5.5	4.3	6.2	4.0	4.2	5.0	4.7	25.0	10.2
Oil, & Coal	3.9	11.2	7.7	11.5	4.5	4.7	4.5	4.2	-	1.4
Textiles, Clothing & Footwear	1.4	4.0	2.5	3.6	3.9	4.1	4.2	4.0	5.1	11.6
General Purpose Machinery	1.3	3.7	2.4	3.5	2.6	2.7	3.0	2.8	15.4	8.7
Non-ferrous Metals	0.4	1.2	2.6	3.8	2.3	2.4	2.6	2.5	13.0	20.6
Other Products	8.7	25.1	17.2	24.8	22.2	23.1	23.1	21.9	12.6	11.1
TOTAL IMPORTS	34.7	100.0	69.3	100.0	95.8	100.0	105.7	100.0	10.3	11.8

* 11 months annualized.

Source: Statistics Canada, Summary of Canadian International Trade.

Principal Canadian Imports
by Commodity Group
1985*

Total ($105.7 billion)



* 11 months annualized
Source: Statistics Canada,
Summary of Canadian International Trade.

Similarly, the People's Republic of China, Canada's fifth largest market, also buys large quantities of grains and represented 1.1 percent of exports and 0.4 percent of imports in 1985. However, it is anticipated that with the PRC's improving self-sufficiency in wheat and other grains, Canada must strive to replace losses in grain exports with gains in exports of other products.

TABLE 5

DIRECTION OF TRADE, 1985*
(Customs Basis)

Country $B	Domestic Exports $B	%	Imports $B		Balance %
United States	91.1	78.3	75.5	71.4	15.6
Japan	5.7	4.9	6.1	5.8	-0.4
United Kingdom	2.4	2.1	3.2	3.0	0.8
USSR	1.6	1.4	0.03	0.03	1.6
P.R. China	1.3	1.1	0.4	0.4	0.9
W. Germany	1.2	1.0	2.7	2.6	-1.5
Netherlands	0.9	0.8	0.6	0.6	0.3
Belgium-Luxembourg	0.7	0.6	0.5	0.5	0.2
S. Korea	0.8	0.7	1.6	1.5	-0.8
France	0.7	0.6	1.4	1.3	-0.7
Mexico	0.4	0.3	1.4	1.4	-1.0
Italy	0.5	0.4	1.3	1.2	-0.8
Taiwan	0.4	0.3	1.3	1.2	-0.9
Australia	0.6	0.5	0.3	0.3	0.3
Hong Kong	0.3	0.3	0.9	0.9	-0.6
Other	7.8	6.7	8.6	8.1	
TOTAL	116.4	100.0	105.8	100.0	10.6

* 11 months annualized.

Source: Statistics Canada, Summary of External Trade.

5. FEDERAL GOVERNMENT PROGRAMS FOR EXPORT

5.1 Export Marketing Programs

The Department of External Affairs has two programs - the Program for Export Market Development (PEMD) and the Promotional Projects Program (PPP) - to help Canadian companies develop export markets for their products and services. DRIE's regional offices provide full information on both programs and administer the PEMD's programs to their local business clients, for External Affairs.

As shown in Appendix II, PEMD shares the financial risks of Canadian businesses wishing to enter or expand their activites in foreign markets. Designed to meet individual company requests for marketing support, the program may provide financial assistance to eligible companies to help cover the cost of bidding on specific projects outside Canada, market identification trips to potential foreign markets, participating in trade fairs abroad, bringing foreign buyers to Canada, forming export consortia, establishing facilities on location in order to sustain marketing efforts, and, developing export markets for agriculture, fisheries and food products.

Through the Promotional Projects Program, as shown in Appendix II, the federal government underwrites some of the cost to industry of participating in national exhibits at trade fairs abroad and in outgoing trade missions. The program is also used to fund incoming trade visits by foreign buyers and government delegations. DRIE's regional offices and industry sector branches make recommendations regarding industry participation and may work with participating firms to ensure successful completion of projects. Companies interested in a particular fair or mission should advise DRIE regional office staff who will pass the information on to the appropriate bureau in the Department of External Affairs.

5.2 Other Sources of Federal Export Assistance

The Department of External Affairs in Ottawa, together with its global network of 93 trade offices staffed by trade commissioners, is the prime source of information on tariff and trade negotiations and on opportunities and competition in the market places of the world. It identifies foreign capital projects opportunities and, with appropriate assistance from DRIE's regional offices and industry sector branches, helps Canadian firms to take advantage of them. It also makes exporters aware of the requirements of the Export and Import Permits Act. Companies may obtain direct information about the Department of External Affairs programs and services by phoning the:

Export Trade Information Centre/Ottawa (613-593-6435, toll-free 1-800-267-8376).

The Centre provides information on foreign countries, export markets, trade regulations, trade fairs and missions and other matters of interest to Canadian exporters.

5.3 Export Development Corporation (EDC)

The major portion of federal export financing is provided by EDC. This federally-owned corporation has a multimillion-dollar capacity to finance export sales through loans, loan guarantees and export insurance. The four main types of assistance are: credit insurance to cover up to 90 percent of losses caused by non-payment of foreign buyers; loans and loan guarantees needed by foreign purchasers of Canadian goods and services; foreign investment insurance to provide cover for Canadian investments in developing countries against political risks; and, surety and performance guarantees to insure Canadian companies against foreign calls on a guarantee or against non-performance by a consortium partner. Further information is available from:

Export Development Corporation
Head Office, P.O. Box 655, Ottawa, Ont., K1P 5T9, (613)237-2570; or,

EDC Regional Offices: The phone numbers of EDC regional offices are: Vancouver (604) 688-8638; Calgary (403) 294-0928; Toronto (416) 364-0135; Montreal (514) 878-1881; Halifax (902) 429-0426.

5.4 Canadian International Development Agency (CIDA)

CIDA's Business Cooperation Branch provides financial support under the Industrial Cooperation Program to companies which have identified joint venture opportunities to undertake preliminary Starter Studies (maximum $15,000). This is usually followed by a more in-depth Viability Study (maximum $100,000), should the initial investigation prove positive.

The Viability Study should take the company to the conclusion of negotiations on its venture. If appropriate, support is also available to cover 75 percent of technology testing (maximum $250,000) related to the joint venture. Once a firm has made the commitment to enter into a joint venture, the Project Support Program (maximum $250,000) is available to offset costs being incurred in early stages of operation (approximately one year) that are peculiar to the developing country, and beyond those normally incurred in establishing a similar venture in a more industrialized country. The normal investment and costs involved in maintaining the venture are the responsibility of the two partners involved. Finally, to ensure that Canadian companies have access to sourcing from international institutions, the program provides financing up to $350,000 for project preparation pre-feasibility studies.

For information on the CIDA Industrial Cooperation program, phone:
(819) 994-4348 in Ottawa.

5.5 Canadian Commercial Corporation (CCC)

This federally-owned corporation ties together the procurement requirements of foreign governments and international agencies with the supply capabilities of Canadian producers of goods and services.

CCC provides Canadian businesses, many of them relatively small, with access to foreign government purchasing offices. It also acts as prime contractor, in capital project exports when a government-to-government arrangement is preferred by the Canadian supplier or the foreign buyer, or in projects financed by development banks and other multilateral organizations such as the World Bank and the United Nations Development Program. Further information is available from:

Canadian Commercial Corporation, 112 Kent Street, Tower B, Place de Ville, Ottawa, Ontario, K1A 1E9, Telephone (613) 996-0034.

6. EXPORT FINANCING BY CANADIAN CHARTERED BANKS

As at November 30, 1985, the 69 Canadian chartered banks had assets of $433.6 billion, of which $29.4 billion was held by Schedule "B" (foreign owned) banks and $404.2 billion by Schedule "A" banks. The banks have a country-wide network of 7,000 branches in some 1,700 communities. In addition, they maintain more than 25 international centres serving Canadian companies from coast to coast, with 2,300 employees involved directly in providing international services. The Canadian chartered banks also have, collectively, some form of representation in almost every country which has a meaningful trade relationship with Canada.

While chartered banks provide about 95 percent of export financing, their participation in officially government supported export financing has declined over the past six years, from 45.4 percent in 1978 to 4.3 percent in 1983.

In addition to their domestic and international presence, some of the Canadian banks have merchant banking subsidiaries. These subsidiaries are on the leading edge of financial innovation. Canadian banks offer the following finance related services:

Credit Insured Canadian Exports:

> Permitting Canadian exporters to obtain the benefits of EDC insurance through the banks, which handle credit assessments and assume responsibility for all credit insurance negotiations and obligations.

Short-Term Credit:

> For purchases of industrial materials, spare parts and consumer goods, usually on terms up to 180 days.

Medium-Term Credit:

> For capital goods, including industrial machinery and heavy equipment, on terms up to 5 years.

Distributor Credit:

> For distributors of automotive, construction and industrial equipment who purchase equipment, for resale to end-users.

Packaging Capability for Major Projects:

> Packaging together of orders to be placed with several manufacturers for one project. This simplifies negotiations and frequently improves available terms.

Lines of Credit:

> Established prior to placing orders. They enable importers to negotiate with exporters knowing that credit will be available.

Canadian Banks also offer the following trade-related services:

1. Trade Financing:
    - Buyer Credits
    - Seller Credits
    - Forfeiting
    - Discounting of Trade Paper
    - Discounting of Term Acceptances under Letters of Credit
    - Financing of Foreign Accounts Receivable
    - Import Lines of Credit
    - Countertrade

2. Letters of Credit:
    - Export
    - Import
    - Bid, Down Payment and Performance Guarantees

3. Foreign Currency Services:
    - Foreign Exchange
    - Foreign Currency Term Deposits
    - Foreign Currency Loans
    - Counselling on Foreign Exchange and Money Market Operations
    - Forward Exchange Contracts

4. Payments and Collections:
    - International Payments - Cable, Telex, Telephone, Mail
    - International Collections - Clean and Documentary Bills
    - Direct Collection Service
    - Lock Boxes

5. Trade Services:
    - International Market Information
    - International Trade Contacts
    - International Credit Information
    - International Project Profiles

6. Project Financing:
    - Specialized Financing for Major Capital Projects
    - Financial Advisory Services

7. Other:
    - International Cash Management
    - Leasing

7. PROVINCIAL INVOLVEMENT IN EXPORT DEVELOPMENT

Provincial governments have also been actively involved in promoting exports. These provincial activities have tended to supplement federal programmes by picking up where federal programmes end. However, provincial governments have been significantly intensifying their export efforts in recent years and have begun to move into less traditional areas such as export financing. Several provinces offer companies a considerable range of programmes that assist them to participate in international trade fairs, to research new markets and to improve their marketing skills. Provincial ministers and officials have also led missions to foreign markets and have received many foreign buyers.

A number of provinces have trade offices abroad which actively engage in promoting exports and seeking potential investors for their respective provinces. Contacts for specific provinces are available on request.

In the area of export development, where both federal and provincial governments have marked interest in common export opportunities, there has tended to be a high degree of co-ordination. The capacity to co-ordinate appropriately is being strengthened by the establishment of the Federal Provincial Committee on Export Development, which provides the opportunity to discuss questions of export promotion and the implementation of marketing plans in a way that complements the activities in day-to-day operations. This Committee also serves as a mechanism for briefing provinces on activities of the Export Trade Development Board. This ongoing co-ordination at the officials' level is enhanced by discussion at the ministerial level, including Federal-Provincial meetings of Trade Ministers.

8. COUNTERTRADE AND CANADIAN TRADING HOUSES

8.1 What is Countertrade?

The term countertrade assumes a broad generic definition covering transactions where the purchase of a product and/or service by a company or country is linked to a reciprocal purchase (namely counterpurchase, compensation, buyback, barter, and switch) by the seller or some other form of offset against the original sale, such as technology transfer, licensing, industrial co-operation, joint ventures, local content or domestic investment. The rationale and reasons for demanding countertrade are various.

8.2 How Did Countertrade Develop?

Current countertrade developments are the result of economic changes and activities that have taken place over the last 10 to 15 years.

8.2.1 East-West Trade

In the 1960s and 1970s, countertrade was typically found in the domain of East-West trade. It was primarily undertaken in major capital projects where countertrade of the compensation and buyback variety was entered into for the purpose of financing such projects by marketing the resulting products.

8.2.2 Higher Oil Prices

The tenfold increase in oil prices during the years from 1973 to 1980 created major balance of payment problems for developing countries, and resulted in hard currency shortages. OPEC surpluses generated from oil price increases during these years were deposited with international banks who, in turn, recycled these funds to the oil importing developing nations (a large majority of them recently independent and with little expertise in international financial matters). In turn, the developing nations used these moneys for large capital projects and to refinance, at least partially, the balance of payment deficits created by the need to import oil and to sustain economic growth.

By continuing on this path, developing nations grew deeper into debt. This already onerous situation was further exacerbated by the dramatic increase in interest rates which took place towards the end of 1980. In 1982, interest payments by the less developed countries accounted for up to 45 per cent of their total exports of goods and services.

The conditions created by these factors alone were enough to give rise to more countertrade demands. Developing countries recognized, however, that despite the complaint by industrialized countries that countertrade was a regressive practice and contrary to the multilateral free trading system, they too engaged in various forms of restrictive economic activity such as tariff and non-tariff barriers, export subsidies, and other measures which restricted export markets for developing countries.

Thus, developing nations have had to resort to, and are resorting to, countertrade for a number of reasons including: to finance imports, to gain access to western markets, marketing services and new technology, and, to induce foreign investment and commitments to other forms of future national economic development. For these countries, the options are few, because the consequences of inflation and unemployment are frequently social unrest and revolution.

8.2.3 Industrial Offsets Among Developed Countries

Industrialized nations, as a result of internal political and social pressures, have added to the countertrade proliferation by demanding offsets in circumstances of substantial capital goods purchases, major projects, and military procurement. This practice is seen by some as being of much greater future importance than the traditional commodity-oriented countertrade. Capital goods and services exporters must now consider, as part of their business strategy, the implications of purchasing foreign-made goods for internal use and external disposal, subcontracting production, overseas joint ventures in R & D and manufacturing, the potential loss of domestic employment, and the transfer of technology. This form of countertrade is now considered almost a standard requirement in tendering for overseas projects.

A major growing problem in coping with countertrade (and offsets) is the ability to place manufactured products, both internally and externally. External placement is plagued by the lack of sufficient companies offering this form of countertrade service; some may offer this service, but few have any true hands-on experience.

Internal placement requires a level of sophistication found only in a number of multinationals with a large and diverse purchasing base, who are able to absorb products from foreign suppliers as a consequence of this forced linkage. This area is plagued by quality-level problems, particularly with less developed countries but including some industrialized nations.

8.2.4 Trends in Countertrade

The development of countertrade has been reflected in the growing number of countries using the practice. In 1972, 15 countries, mostly of East European origin, were involved in countertrade. In 1979, this had increased to 27, and by 1983 expanded to over 88.

Various press reports cite the amount of countertrade as being anywhere from 1 to 40 percent of global trade, or from $15-900 billion (US). The reasons for the tremendous variations in global estimates are caused by the lack of agreement on what constitutes countertrade, the lack of data on transactions and the secrecy that surrounds its practice. A conservative estimate of about 10 percent of world trade, developed by Business International of New York, appears to be the most widely accepted figure.

8.3 Canada's Experience with Countertrade

8.3.1 The Role of Countertrade

A combination of the nature, type and destination of Canadian exports, as well as the structure of the Canadian economy, has had a major influence on the relatively low level of countertrade encountered and engaged in by Canadian exporters to date. Reasons for this include (with exceptions):

- The majority of countertrade has been in the areas of manufactured products and capital projects;
- The large concentration of Canadian exports is in raw and semi-processed forms which are less often subject to countertrade;
- The majority of Canadian export activity is in markets which are not actively involved in countertrade, i.e., U.S., Japan, and other OECD countries;
- The predominance of Canadian-based foreign subsidiary sales to parent companies (particularly in the manufactured products area); and,
- The assuming of countertrade responsibilities of Canadian subsidiaries by foreign parent companies.

8.3.2 The Impact of Countertrade

While countertrade may affect 10 percent of world trade, to date, Canadian exports have been minimally affected. The key factors which have kept this impact minimal include the following:

- the dominance of the U.S. and other OECD countries as export markets for Canadian goods;
- the predominance of food and raw material exports in Canada's exports which, to date, have not been subject to extensive countertrade pressures.

The Department of External Affairs estimates that approximately $600 million of 1984 Canadian exports involved some form or degree of countertrade. This was equivalent to 0.5 percent of total Canadian exports.

8.3.3 The Responses of Canadian Exporters

Organization and Sector

There have been three principal organizational responses by Canadian exporters to countertrade, depending on the level and frequency encountered. These include:

- The designation of an individual(s) within the company responsible for developing knowledge of different countertrade techniques; contacts with countertrade practitioners and trading companies, and co-ordinating the companies: countertrade activities. This might include employing an outside countertrade specialist to assist in arranging countertrade deals;

- An internal countertrade unit actively arranging for and disposing of goods, both internally and externally, operating on a profit or cost basis;,

- A full-scale trading company subsidiary offering countertrade and related services to the public and operating on a profit basis.

Canadian companies operating in the above categories are mostly situated in the sectors of electronics, communications, industrial equipment, transportation, agricultural equipment, and resources.

Other Sources of Countertrade

In addition to organizational responses, a number of different sources of countertrade services and avenues for disposal of goods are available to Canadian exporters:

- Canadian multinationals, such as Noranda and Massey-Ferguson, are active in arranging countertrade deals and disposal of goods;

- Canadian subsidiaries of foreign trading companies such as Metallgesellschaft, Mitsubishi, Mitsui and other foreign-owned trading companies, are active as above;

- Foreign and Canadian banks offer countertrade services by providing information on the various forms of countertrade, and specific practices in particular countries, escrow accounts, bridge and pre-export financing. They also help by assisting or taking the lead role in negotiations concerning countertrade arrangements, by locating buyers or appropriate trading companies and co-ordinating their involvement, and by offering related countertrade consulting and services; and,

- Small and medium-sized Canadian trading companies with specific product knowledge, market expertise, and contacts are doing countertrade in support of their own trade and, on an ad hoc basis, for other exporters.

International Expertise

Necessary countertrade expertise is not confined to Canadian sources. European and American trading companies, some with offices in Canada, have countertrade expertise relevant to an exporter's requirements and these services have been used. A common misconception is that goods received by Canadian exporters through countertrade deals end up in Canada, e.g., the frequently cited Romanian example of shoes or wine coming into Canada. This is generally not the case, because Canada has a limited market for the type of goods generally received in countertrade. Many of these goods are not of acceptable quality and often do not meet consumer standards. Exporters should try to exclude provisions that require the goods to be sold in Canada.

8.3.4 The Role of Canadian Trading Houses

The Directory of Canadian Trading Houses (released in September 1984, based on the Business Opportunities Sourcing System) identifies 152 trading houses of all sizes offering different levels of countertrade services. These results demonstrate that there are alternatives to the larger commodity traders in some cases, and that countertrade expertise is developing in Canada. Small and medium-sized Canadian trading houses can offer their unique services and expertise in situations combining one or all of the following characteristics:

- Transactions up to approximately $1 million, depending upon the product and country of origin (larger companies find these unprofitable);
- Value-added manufactured products;
- Mixed product offerings of small proportions.

In many circumstances, trading houses can be expected to be more creative and innovative than the larger trading companies.

The larger trading companies with countertrade skills appear to be well-known by affected exporters and many exporters are developing their own expertise through experience.

In October 1985, the Department of External Affairs released the Countertrade Primer for Canadian Exporters, aimed at assisting Canadian exporters in dealing with the intricacies of countertrade. This report includes a list of trading houses with expertise in countertrade and profiles of countertrade practices in 44 countries.

The Trading House and Countertrade Division of the Department of External Affairs, located on the 5th Floor, Tower C, Lester B. Pearson Building 125 Sussex Drive, Ottawa, Ontario, K1A 0G2, (613) 996-1419 can provide assistance on countertrade matters.

9. TRADE POLICY

9.1 Commitment to Multilateralism

The cornerstone of Canadian trade policy is a commitment to an open multilateral trading system, as embodied in the legal framework of the General Agreement on Tariffs and Trade (GATT). Canada has traditionally sought more secure and enhanced access to world markets through recurring rounds of GATT multilateral trade negotiations and has, when necessary, resorted to its GATT rights in defence of Canadian trading interests.

9.2 Reduction of Tariff and Non-Tariff Barriers

The immediate focus of Canadian trade policy is on preparations for a new round of multilateral negotiations and on possible new approaches to Canada-U.S. trade relations. There is a growing support for the establishment of a new round.

Negotiations could conceivably cover all product sectors and the full array of tariff and non-tariff measures. They could also involve efforts to strengthen the institutional framework of the multilateral trading system and to protect the value of negotiated market access conditions. There is, therefore, considerable scope for improving access in principal Canadian export markets.

9.3 Canada-U.S. Relations

Because of its role in the Canadian economy, the Canada-U.S. relationship is given special attention in Canadian trade policy. Trade is an integral part of a unique overall relationship encompassing $150 billion of two-way trade in goods and services, extensive investments, technology transfer and a vast network of intra-corporate exchanges. The relationship is under-pinned by geographic proximity, mobility of capital, similar business and economic structures, reductions in tariffs through earlier GATT rounds (to a point where some 80 percent of Canadian exports to the U.S. and 65 percent of U.S. exports to Canada will be free of customs duties by 1987) and a common approach to the rules governing trade.

9.4 The Current Trade Policy Review

The Federal discussion paper "How to Secure and Enhance Canadian Access to Export Markets", outlines possible approaches for securing and improving Canadian access to the U.S. market. These are now the subject of intensive domestic consultations between the federal and provincial governments and the private sector. The Canadian Prime Minister and the U.S. President also committed themselves, in March 1985 in Quebec City, to halt protectionism in cross border trade in goods and services. They charged the U.S. Trade Representative and the Minister for International Trade "to chart all possible ways to reduce and eliminate existing barriers to trade" and to report within six months. That report spoke of commitment to pursue the free trade initiative. A twelve-month report is to be released at the next Canada-U.S. meeting of leaders, in March 1986 in Washington.

Obtaining improved and more secure access to the U.S. market will remain a priority for Canada in any possible bilateral approaches, and in the new round of multilateral trade negotiations. As confirmed by the Prime Minister of Canada, the trade enhancement movement between Canada and the U.S. is aimed at complementing the GATT and not at circumventing it by creating an insular North American market. Canada remains open and committed to maintaining its trade relations with Europe and the Pacific Rim countries, and trade liberalization with the U.S. will not preclude our trade with other parts of the world.

9.5 Canada-U.S. Free Trade Negotiations

If the U.S. Congress assents to the process, formal negotiations on Canada-U.S. trade liberalization could begin soon. Most observers agree that the negotiations could last up to 2 years. In anticipation of congressional permission, both countries have appointed the heads of their respective negotiating committees. The Canadian negotiator, Simon Reisman, a former deputy finance minister, has extensive experience in bi-lateral trade negotiations, having served in that capacity for the Canada-U.S. autopact. Peter Murphy, the U.S. nominee, moves to the negotiating table from his position as U.S. Ambassador to the GATT.

APPENDIX I

TRADE COUNCILS

This is a listing of the trade councils currently active in Canada. In each case, a contact has been provided, who is not necessarily the chief-elected officer but to whom enquiries may be directed.

ASIA/PACIFIC

CANADA-INDIA BUSINESS COUNCIL
c/o Canadian Chamber of Commerce
301 - 200 Elgin Street
Ottawa, Ontario K2P 2J7
(613) 238-4000
Ilan Kapoor, Trade Promotion Officer

CANADA-JAPAN BUSINESS COOPERATION COMMITTEE
c/o Alcan Aluminum Ltd.
1188 Sherbrooke Street West
Montréal, Québec H3A 3G2
(514) 848-8000
Michael C. de E. Miller,
Vice-President

CANADA-PAKISTAN ECONOMIC AND TRADE COUNCIL
c/o Lavalin International Inc.
1130 Sherbrooke Street West
Montréal, Québec H3A 2R5
(514) 288-1740
Kalman F. Benko, President

CANADA-CHINA TRADE COUNCIL
Suite 805, 199 Bay Street
Toronto, Ontario M5J 1L4
(416) 364-8321
Michael D. Cochrane, Project Manager

CANADA-KOREA BUSINESS COUNCIL
c/o Canadian Chamber of Commerce
301 - 200 Elgin Street
Ottawa, Ontario K2P 2J7
(613) 238-4000
Mr. Ilan Kapoor, Trade Development Officer

CANADA-PHILIPPINES COUNCIL
c/o Bank of Nova Scotia
44 King Street West
Toronto, Ontario M5H 1H1
R.E. Peel, General Manager,
Special Activities
(416) 866-5750

CANADIAN COMMITTEE, PACIFIC BASIN ECONOMIC COUNCIL
c/o Canadian Chamber of Commerce
301 - 200 Elgin Street, Ottawa, Ontario K2P 2J7 (613) 238-4000
Miss Heather Gibb, Trade Development Officer

LATIN AMERICA

BRAZIL-CANADA CHAMBER OF COMMERCE
Suite 201 W., 100 Adelaide St. W.
Toronto, Ontario M5H 1S3
(416) 364-4634
L.A. Bourgeois, General Manager

CANADIAN ASSOCIATION FOR LATIN AMERICA AND THE CARIBBEAN
42 Charles Street East, 8th Floor
Toronto, Ontario M4X 1T4
(416) 964-6068
Ms. Marie-Nicole Tempesta, President

MIDDLE EAST/NORTH AFRICA

CANADA-ARAB BUSINESS COUNCIL
c/o Canadian Chamber of Commerce
301 - 200 Elgin Street
Ottawa, Ontario K2P 2J7
(613) 238-4000
Peter Egyed, Secretary

CANADA-EGYPT BUSINESS COUNCIL
c/o Martineau, Walker
Suite 3400, Stock Exchange Tower
Place Victoria
Montréal, Québec H4Z 1E9
(514) 397-7417, J.L. Toupin, President

CANADA-ISRAEL CHAMBER OF COMMERCE
Suite 1100, 48 St. Clair Avenue West, Toronto, Ontario M4V 1N2,
(416) 916-7302 or 961-7407, Gabriel H. Regev, Executive Director

UNITED STATES OF AMERICA

CANADA-UNITED STATES ADVISORY COMMITTEE
c/o Canadian Chamber of Commerce
301 - 200 Elgin Street, Ottawa, Ontario K2P 2J7, (613) 238-4000
Dr. Dan Roseman, Director, International Policy

EUROPE

CANADA-FRANCE BUSINESSMEN'S COMMITTEE
c/o Banque Nationale du Canada
600 de la Gauchetière Ouest
Montréal, Québec H3B 4L2
(514) 394-4141, Michel Bélanger
Chairman of the Board

CANADA-UNITED KINGDOM COMMITTEE
c/o Canadian Chamber of Commerce
16th Floor, 1080 Beaver Hall Hill
Montréal, Québec H2Z 1T2
(514) 866-4334
W.G. Browne, Secretary

CANADIAN-GERMAN CHAMBERS OF INDUSTRY & COMMERCE
Suite 1110, 2015 Peel Street
Montréal, Québec H3A 1T8
(514) 844-3051
Uwe Harnack, General Manager

Suite 1410, 480 University Avenue
Toronto, Ontario M5G 1V2
(416) 598-3355
E. Goetting, Deputy Executive Director

1330 Scotia Place, 10060 Jasper Avenue
Edmonton, Alberta T5J 3R8,
(403)420-6611, R.A. Gemeinder, Manager

CANADIAN-ITALIAN BUSINESS & PROFESSIONAL MEN'S ASSOCIATION OF QUEBEC
Suite 350, 6020 Jean Talon St. East
St. Leonard, Que., H1S 3B1
(514) 254-4929
Guido Dargensio, C.A., President

CANADIAN-ITALIAN BUSINESS & PROFESSIONAL ASSOCIATION OF TORONTO
901 Lawrence Avenue West, Suite 212
Toronto, Ont. M6A 1C3 (416) 782-4445
Joe Perna, Executive Director

CHAMBRE DE COMMERCE BELGE ET LUXEMBOURGEOISE AU CANADA
373 Place d'Youville
Montréal, Québec H7Y 2S1
(514) 845-4650

CHAMBRE DE COMMERCE FRANCAISE AU CANADA
360 St. François Xavier Street
Montréal, Québec H2Y 2S8
(514) 281-1246
F. Clement, directeur général

APPENDIX II

Program for Export Market Development (PEMD)

The Program for Export Market Development (PEMD) helps Canadian businesses to develop, increase, sustain and diversify their export activities by sharing with them the financial risks of specific export marketing efforts. PEMD was designed to encourage Canadian companies to begin export marketing; to encourage established exporters to enter new export markets; and to undertake additional export development activity.

PEMD is administered and delivered by External Affairs as well as the Department of Regional Industrial Expansion (DRIE) regional offices across Canada. PEMD is available to eligible Canadian companies with an export capability for taking export marketing initiatives.

During the 1971-1984 period, a total of 24,112 applications were approved for PEMD assistance to some 12,500 companies for a value of nearly $208 million. Only $110 million was actually claimed. Reported sales attributable to this PEMD assistance were about $5.7 billion.

PEMD provides up to 50 percent of the eligible costs incurred by a company in its penetration of new markets. These contributions are repayable if export sales are achieved.

The program for Export Market Development has various sections, each designed to assist exporters to undertake the various steps required to identify, develop new or expand existing export markets.

Section A: Specific Project Bidding: Section A may share the cost of bidding on specific projects anywhere outside Canada. The projects typically involve a formal bidding procedure in competition with foreign firms, for consulting services, engineering, construction and the supply of equipment and other Canadian goods and services.

Section B: Market Identification: Section B may help companies to undertake market identification activities in potential markets and to assess whether exporting to that market would be commercially viable or to make industrial cooperation arrangements. Eligible "B" activities are visits, seminars, technical presentations, market studies and industrial co-operation arrangements which result in significant export benefits to Canada.

Section C: Participation in Trade Fairs Abroad: Section C may help Canadian exporters to participate in conventional trade fairs and industrial exhibitions outside Canada. Companies may participate in the same (or essentially the same) event up to three times. The events that PEMD supports are generally of limited duration rather than on-going exhibitions.

Section D: Incoming Foreign Buyers: Section D may help Canadian companies to bring potential foreign buyers to Canada, or to an approved location abroad. The foreign buyers must represent importers located abroad and must play a major role in influencing purchasing decisions or industrial cooperation agreements.

Section E: Export Consortia: Section E encourages Canadian firms to jointly establish an incorporated company engaged solely in the export of the Canadian products and services of those firms. It is especially designed to encourage consortia of small and medium-sized firms. Section E supports feasibility studies of proposed export consortia, as well as the formation and initial operation of new consortia for up to three years.

Section F: Sustain Export Market Development: Section F may help Canadian exports to undertake a sustained marketing effort in a foreign market by establishing facilities on location. Under Phase I of Section F, support may be provided for a detailed study to determine the viability of establishing facilities in a particular export market. The study would focus on a three-to-five-year market penetration plan. Under Phase II, the implementation costs determined by the plan may be shared for up to three years.

PEMD-FOOD: Export Development Activity for Agriculture, Fisheries and Food Products: PEMD-FOOD assists Canadian companies, producer organizations, marketing agencies and related industry associations to undertake new or incremental export initiatives which represent an extension of normal business activities. This section supports such traditional export development activities as: market identification, trade fairs, incoming buyers, feasibility and marketing studies, test marketing and trial shipments.

PEMD-FOOD also provides scope for, and a flexible approach to, addressing the specialized export development needs and opportunities of the sector. Assistance may be provided for the organization of commodity groups to undertake export development activity. Under appropriate circumstances, assistance may cover capital or operating costs for special production equipment, handling and storage facilities or technical training or promotion facilities in Canada. Long-term market development plans and projects including generic promotion, establishment of overseas representation and technical training in Canada for representatives of potential or existing markets, may also be eligble. Assistance to non-sales organizations may be on a non-repayable basis.

PEMD-FISH: Export Markets for Atlantic Groundfish and Herring: This section is designed to provide increased scope and a more flexible approach to address the specialized export development needs and opportunities of the Atlantic groundfish and herring industry. PEMD-FISH supports activities similar to those described under Sections A to F of the general program, as well as under a Special Activities section which provides support for marketing activities which are beyond the scope of the other sections.

Companies wishing further information on the PEMD should contact the regional office of DRIE or External Affairs in Ottawa.

APPENDIX III

Promotional Projects Program

The Promotional Projects Program (PPP) is the vehicle through which the federal government plans and implements exhibits at trade fairs abroad, outgoing and incoming trade missions, and incoming trade visits by foreign buyers and government delegations.

PPP supports initiatives from other units within the government by providing the tools with which trade commissioners, the industry sector branches of DRIE, the geographic branches in External Affairs and the regional offices (DRIE) (reflecting provincial inputs) fulfill their export development responsibilities. In situations where a group of Canadian companies seeks PEMD support for a project that would take on the appearance of a Canadian exhibit or mission, the Fairs and Missions Division of External Affairs is responsible for bringing these group PEMDs to the attention of the Interdepartmental Program Committee to ensure that these activities are effectively coordinated with other government initiatives.

The level of PPP activity which is undertaken each year depends on: the export promotional needs and capability of Canadian industry; the opportunities in the accessibility to the marketplace; the priorities established by the Department of External Affairs, geographical and/or by industry; the total resources, both in personnel and funds available to the Department; and program co-ordination with the provinces to ensure the maximum effectiveness of export thrusts.

The Promotional Projects Program is the funding vehicle through which the government underwrites some of the cost to industry of participating in promotional events that are organized by the Department of External Affairs. These events are designed to increase the knowledge of foreign buyers about Canadian products and capability and to undertake export market intelligence-gathering operations.

The program encompasses a wide variety of trade promotion techniques within three general categories: trade fairs abroad, trade missions and trade visitors. These projects are initiated by the government and reflect those events developed in consultation with the DRIE industry sector branches and regional offices, as well as trade commisssioners abroad to achieve the government's market development objectives. The choice of projects also ensures recognition of commitments implicit in ministerial missions, policy statements and the signing of international trade agreements.

The program is designed to benefit a wide cross-section of Canadian industry by providing the opportunity to promote Canadian manufacturing capabilities, services and products in the market places of the world. On-site sales, the appointment of agents, and the assessment of competition are some of the advantages Canadian companies gain from program participation. Most important, the program gives the Canadian manufacturer an appreciation of foreign business methods, problems and customer preferences.

The Promotional Projects Program is administered by the Assistant Deputy Minister, International Trade Development Branch in External Affairs, through an Interdepartmental Program Committee. For further informtion, contact the geographic branches.

APPENDIX IV

International Industrial and Technological Arrangements

An increasingly complex set of regulatory instruments and domestic industrial and economic development policies have evolved, both in Canada and abroad. The capacity of many Canadian industries to take advantage of the opportunities offered internationally is being significantly influenced by the extent of their involvement in direct investment undertakings, joint ventures and licencing arrangements.

These techniques to gain or ensure market access have been an important complement to conventional negotiations of reductions in trade barriers and deployment of export promotion activities. Access to the latest technologies and to scarce investment capital will be a major determinant of the industrial innovation capabilities and trade performance of individual countries in the 1980s. For its part, Canada negotiated such arrangements with almost thirty governments, providing government-to-government frameworks aimed at fostering development and trade-related commercial undertakings by the private sector. Some of these arrangements are highly structured (e.g., with Middle Eastern countries), while others are of a more informal nature.

Western Europe & Japan.

With Western Europe and Japan, the emphasis has been on encouraging investment in areas beneficial to the national economy; promoting an awareness of Canadian products and expertise; and fostering a better understanding of the impact of national industrial policies on trade in both directions. This has been complemented by government-sponsored private-sector missions which, in addition to exploring direct export opportunities, expose Canadian businessmen to new technologies and products and encourage company-to-company contacts. For example, within the framework of the Economic Cooperation Agreement with the EEC, Canadian industry has been able to enhance the acceptance of Canadian timber-frame construction techniques in the important European housing market. With Japan, considerable efforts have been made to encourage Japanese investment in mineral processing and petrochemical facilities in Canada, thereby diversifying the historical concentration in the extraction of raw resources. In September 1985, Mr. Murata, the Minister of International Trade and Industry of Japan and Mr. Stevens, Minister of Regional Industrial Expansion issued a joint statement in which they agreed to promote industrial cooperation in both countries, by means of joint ventures, licensing agreements, joint research and development and two-way investment and cooperation in third country markets. The governments will foster an environment conducive to expansion of industrial cooperation. Sectors for industrial cooperation will be identified at annual meetings. Initial agreement was to target the ceramics, advanced manufacturing technology and microelectronics sectors.

Eastern Europe.

With the state-run economies of Eastern Europe and many developing countries where commercial undertakings are frequently entered into, with or through the state and state-trading organizations, bilateral cooperation arrangements also provide the necessary political impetus to promote Canadian trade and investment and an awareness of Canadian capabilities in certain areas through joint working groups, exchanges of missions, etc. It is often difficult for Canadian firms to penetrate nontraditional markets due to a lack of understanding of the particular features of state-trading systems, difficulties in accepting counter-trade demands and high marketing costs associated with prolonged negotiations. In these types of framework agreements, the role of the Canadian government is largely one of a facilitator. To a considerable degree, the effectiveness of these arrangements depends on the level of interest shown by the private sector.

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ENERGY

Canada's energy needs are met primarily by oil, electricity, natural gas and coal. In 1984, the share of oil as a source of energy amounted to 32 percent; electricity 32 percent; natural gas 20 percent; and coal 12 percent. Other forms such as solar, wind, biomass and geothermal made up the remaining 4 percent.

While some east coast crude oil requirements are satisfied by imports, pipeline construction plans will ensure that soon all of Canada will fall within the security of a domestic production and delivery system.

While having increased, prices for energy in Canada are relatively stable, and are not normally subject to uncontrolled fluctuations when prices and supplies in other countries rise and fall.

1. THE ATLANTIC AND WESTERN ACCORDS

1.1 The Atlantic Accord

On February 11, 1985, The Government of Canada and the Government of Newfoundland and Labrador signed the Atlantic Accord setting out the terms and conditions on the management and revenue-sharing of offshore oil and gas.

The 68 clause agreement is based on the principle that all producing provinces be treated equally, in areas such as revenue-sharing, whether the resource is on land or offshore. The Atlantic Accord created the Canada-Newfoundland Offshore Petroleum Board and the Canada-Newfoundland Development Fund.

Comprising seven members, three appointed by each of the two governments, plus a mutually acceptable chairperson, the Canada-Newfoundland Offshore Petroleum Board is empowered to make decisions on the management of the Newfoundland and Labrador offshore oil and gas resources. Among other things, it grants production licences, issues lands for exploration, and approves development plans.

To help the province prepare itself for offshore development and production, the Atlantic Accord established the $300 million Canada-Newfoundland Development Fund. The federal government provides $225 million to this fund over the next five years, and the provincial government, $75 million. The fund will help the province build the infrastructure necessary to take advantage of the opportunities created by offshore activity.

1.2 The Western Accord

On March 28, 1985, the governments of Canada and the energy-producing provinces of Saskatchewan, Alberta and British Columbia reached a comprehensive oil and natural gas agreement, the Western Accord, which provides for total deregulation of Canadian crude oil pricing and marketing, takes steps to make the natural gas industry more market-oriented, and eliminates or phases out a number of federal oil and gas taxes or charges.

The agreement will encourage energy security and economic growth in Canada by stimulating investment in the oil and gas industry. Federal taxation of the petroleum industry will also be made more profit sensitive. Legislation to implement the agreed fiscal changes has been passed, is in the process or will be introduced.

The Government of Canada has agreed to remove the following taxes or charges introduced by the previous federal government: the Natural Gas and Gas Liquids Tax, the Incremental Oil Revenue Tax, the Canadian Ownership Special Charge (COSC), Export Charges on both product and crude exports and the Petroleum Compensation Charge (PCC). The Petroleum and Gas Revenue Tax (PGRT), a front-end revenue tax, will be phased out; under the phase-out schedule, the rate of PGRT will be cut in half in about two and a half years, and it will be totally eliminated by January 1, 1989.

The Petroleum Incentives Program (PIP) was terminated as of March 31, 1986 except for certain existing agreements which will be "grandfathered" to no later than December 31, 1987.

Any changes in provincial royalties and incentives will remain completely within the jurisdiction of each province but will be consistent with the agreed upon principle that the net benefits resulting from the above changes will flow through to the oil and gas industry.

Controls on crude oil prices were removed effective June 1, 1985, and a new market-sensitive domestic gas pricing regime was introduced in late 1985.

According to Oilweek (April 1985), an industry publication, the Western Accord should boost industry cash flow substantially.

1.3 New Frontier Energy Policy

On October 30, 1985, the government announced a new Frontier Energy Policy, which replaces the National Energy Policy. The comprehensive energy policy statement follows the successful negotiations that led to the Atlantic and Western accords. The legislative framework has been prepared in consultation with the governments of Newfoundland and Labrador, Nova Scotia, and the Yukon and Northwest Territories. In addition, the legislation has been discussed with northern native groups and representatives of the petroleum industry.

1.3.1 Management Regime

The management regime for Canada's energy frontiers will be contained in a proposed new act, the Canada Petroleum Resources Act (CPRA). The new act will replace the existing Canada Oil and Gas Act and is designed to simplify the regulatory framework and provide a consistent legislative base for oil and gas companies operating in the frontier regions. It also provides the basis for discussions on how these frontier initiatives will be implemented in the North.

Exploration rights will be issued through an Exploration Licence. If a company's exploration effort results in the discovery of significant accumulations of oil and/or gas, the company will have the right to a Significant Discovery Licence. If economics and technology are sufficiently favourable to enable commercial production, a Production Licence will be issued.

Under the CPRA, the government has decided to implement a lands issuance process based on a single bidding criterion, with rights going to the highest bidder.

The key factors in determining the criteria for bidding in the "best bid wins" process will be the geological prospectivity, and the policy objectives of the coastal province or northern territory.

For highly prospective areas, such as those close to an existing commercial exploration discovery, a cash bonus may be most appropriate. Where the exploration effort is less mature, and the risk greater, a form of work commitment may be more suitable. A combination of these approaches, a work bonus bid system in which the cash bid would be refundable as work is completed, could be used in other areas.

Before any Exploration Licence is issued, the Government of Canada will ensure that the views of the native and community groups are taken into account, as well as the protection of the environment, appropriate levels of local and Canada benefits, and Canadian participation. The legislation will establish a maximum term of nine years for all exploration licences.

1.3.2 Crown Share

The Canada Oil and Gas Act provides for a 25 percent Crown Share in all interests held in frontier lands. The Crown Share, often referred to as the "back-in" provision of the Act, has eroded investor confidence and is unfair. Under the new bill, there will be no Crown Share provisions.

1.3.3 Canadian Ownership

At present, federal legislation requires a 50 percent Canadian Ownership Rate (COR) for companies requesting a production licence in the frontier lands. Under the Canadian Petroleum Resources Act, the COR will apply only to production licences for discoveries drilled after March 1982, when Parliament passed the Canada Oil and Gas Act.

Where the COR is below 50 percent at the beginning of a development, the Canadian Petroleum Resources Act will require a company applying for development approval to submit a plan showing how it will attain a COR in the production licence of not less than 50 percent, using reasonable commercial measures, by the time the production licence is issued. In the event that, despite an agreed plan, a 50 percent Canadian ownership level is not reached by the time of production licence approval, the Minister will have the power to require an auction of that portion of the licence sufficient to raise Canadian ownership to 50 percent. The sale price will never be less than the independently determined, third-party evaluation of fair market value.

1.3.4 The Role of Petro-Canada

Under the existing legislation, Petro-Canada enjoys special rights in frontier lands as the designated Crown corporation. The proposed Canada Petroleum Resources Act will contain no provisions giving the company preferential treatment.

1.3.5 Fiscal Initiatives

The Government of Canada believes that a high level of petroleum investment and job creation in Canada can best be achieved by enhancing the rewards from success, rather than subsidizing effort. To facilitate the shift to industry of a greater portion of the risks and rewards of oil and gas exploration and development in Canada, the Government has announced its intention to implement a number of new fiscal measures.

1.3.5.1 Royalties

The Atlantic Accord transferred the responsibility for establishing royalties and provincial-type taxes to the Government of Newfoundland and Labrador for the area offshore Newfoundland. In time, similar treatment may be accorded to other jurisdictions. However, the present frontier royalty regime set out in federal legislation is not sufficiently profit-sensitive. Therefore, the Government has announced a number of changes to the frontier royalty regime for regions where the responsibility for establishing royalties has not been transferred to a province.

A. Frontier Royalty Structure

The current 10-percent Basic Royalty and Progressive Incremental Royalty will be eliminated. They will be replaced with a royalty that, prior to project payout, commences at a rate of 1 percent of gross revenues, rising to 5 percent, in increments of 1 percent every 18 months. Following payout of the initial investment, including a fair return on capital invested, the royalty will be 30 percent of net cash flow. The definition of payout will be determined in further consultations with the industry, provincial and territorial governments.

These changes will limit the royalty burden during the early stages of production but will ensure an equitable sharing between government and industry after the investment has been recovered. The proposed regime is similar to the royalties levied by Alberta on high-cost oil sands and enhanced oil recovery projects.

B. The Investment Royalty Credit

In addition to changes to the royalty structure, the Government will implement a 25-percent Investment Royalty Credit, which will be applicable to eligible frontier exploration well costs equal to, or below, $5 million for new exploration wells. The credit will be applied against royalties otherwise payable within the region. This royalty credit will provide conventional onshore frontier exploration with incentives comparable to those available for similar activity in the western provinces.

1.3.6 The Exploration Tax Credit

The Western Accord announced the elimination of Petroleum Incentive Payments as of March 31, 1986, with the "grandfathering" of exploration commitments on the frontier until the end of 1987. To help bridge the gap between the expiration of PIP and the commencement of frontier developments, which will create new, commercial incentives for frontier investment, a new tax incentive for exploration was introduced. A 25 percent Exploration Tax

Credit applies to qualifying expenses in excess of $5 million per well, for wells drilled anywhere in Canada. To ensure that the credit assists investors that are currently non-taxpaying, this provision is to be refundable at a 40 percent rate. Furthermore, it applies only to those well expenses that did not attract payments under the Petroleum Incentives Program or under the Alberta Petroleum Incentive Program. Qualifying exploration expenses incurred on or after December 1, 1985 and before January 1, 1991 earn the credit.

2. OIL

2.1 Production, Consumption and Reserves

Average daily conventional crude oil and equivalent production declined during 1981 and 1982. This was mainly due to decreased demand resulting from increased conservation and, the economic recession. The recovery, which began in the latter part of 1983 and continued into 1985, led to increased oil demand in two areas: domestic needs and exports to the U.S. Until 1982, Canada was a net importer of crude oil. However, after 1982 Canada exported more than it imported. For more details, see Table 1.

From 1980 to 1982, daily production declined at an average rate of 5.7 percent per year. However, from 1982 to 1985 production rose at an average annual rate of 4.3 percent. Exports of crude oil grew over the 1980 to 1984 period at an average annual rate of 17.4 percent, while imports declined at an average rate of 13.9 percent per year. Domestic consumption decreased from 1980 to 1982, at an average rate of 9.6 percent per year, but rose to 1985, at an average annual rate of 2.1 percent recovery. Year-end reserves averaged 1,036 million cubic metres over the 1980 to 1984 period.

TABLE 1

CRUDE OIL AND EQUIVALENT SUPPLY AND DEMAND IN CANADA

Year	Indigenous Supply	Imports	Exports	Total Demand	Reserves (million m^3)
	------------ Thousand cubic meters per day --------------				
1980	244.6	88.1	32.7	331.2	951
1981	220.1	80.9	25.7	303.1	1063
1982	217.6	53.9	34.0	270.8	1021
1983	230.0	39.9	45.8	271.4	1023
1984	243.5	38.9	56.2	281.4	1124
1985*	246.7	41.8**	73.0*	288.6	n.a.

* Average calculated to September.
** Swaps not included after June 1985.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

2.2 Prices for Refined Petroleum Products

Table 2 is a comparison of regional prices of various selected refined petroleum products. The lowest prices are found in the prairie provinces, while prices close to the national average are in Ontario. The 5 regional prices for industrial heating oil are approximations. Large industrial users normally negotiate directly with the supplier for special rates.

TABLE 2

REPRESENTATIVE RETAIL PRICES FOR SELECTED REFINED

PETROLEUM PRODUCTS - SEPTEMBER 1985

	Gasoline			Automotive	Heating Oil	
	Regular Leaded	Regular Unleaded	Premium Unleaded	Diesel Fuel	Domestic	Industrial*(1)(2)
	-------------------(cents per litre)---------------------					
NFLD	60.9	63.5	64.3	64.4	40.7	
P.E.I.	58.4	60.3	61.2	61.0	38.7	19.58
Nova Scotia	57.7	59.5	60.5	55.9	38.3	(Atlantic)
N.B.	55.9	57.9	58.9	52.9	38.9	
Quebec	57.8	60.4	61.8	51.4	38.5	18.01
Ontario	49.1	52.2	53.2	49.4	38.3	18.44
Manitoba	52.9	53.8	54.8	46.5	38.3	
Saskatchewan	43.7	45.5	46.6	42.1	37.9	21.02
Alberta	43.6	45.7	46.9	37.5	n.a.	(Prairie)
B.C.	55.6	57.5	58.4	45.0	37.6	18.42
CANADA	51.8	54.3	55.4	47.7	38.4	18.78
¢ per U.S. gallon	143.1	150.0	153.0	131.8	106.1	

* No. 6 fuel oil, 3 percent sulphur.

(1) Prices are the industry average per litre realized on the sale to industrial users for this class of oil.

(2) Atlantic, Quebec, Ontario, Prairies, British Columbia and Canada.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

2.3 International Comparisons

In a price comparison of selected petroleum products for September 1985 in Canada, the U.S., the U.K., France, Italy and West Germany, Canadian prices for regular leaded gasoline were the second lowest, at 51.8¢ per litre compared to a high of 99.5¢ in Italy and a low of 40.9¢ in the U.S. Domestic heating oil prices in Canada also were second lowest, at 38.4¢ per litre, compared to 48.5¢ in Italy and 37.6¢ in the U.S.

TABLE 3

PRICES IN VARIOUS COUNTRIES FOR SELECTED REFINED PETROLEUM PRODUCTS - SEPTEMBER, 1985

	Regular Leaded Gasoline		Domestic Heating Oil	
	¢ litre	¢/U.S. gallon	¢ litre	¢/U.S. gallon
Canada	51.8	143.1	38.4	106.1
United States	40.9	113.0	37.6	103.9
United Kingdom	85.8	237.0	43.5	120.2
France	87.2	240.9	46.6	128.7
Italy	99.5	274.9	48.5	134.0
West Germany	70.9	195.9	38.5	106.4

Source: Energy, Mines & Resources, Energy Statistics Handbook.

3 ELECTRICITY

3.1 Production, Consumption and Capacity

Canada is a major producer and exporter of electric energy to the U.S. The installed capacity for producing electricity, (see Table 4) increased from 81.6 GW in 1980, to an estimated 93.7 GW in 1985, at an annual rate of 2.8 percent. During the same period, actual power generation rose at an annual average rate of 4.0 percent. Exports increased at an annual average rate of 7.8 percent. Domestic consumption has been growing at 3.5 percent.

TABLE 4

ELECTRIC POWER GENERATION & CONSUMPTION IN CANADA

	Generation	Domestic Consumption	Exports	Installed Capacity (GW)
	TWH			
1980	366.7	339.4	30.2	81.6
1981	378.5	344.7	35.4	83.3
1982	376.5	345.1	34.2	84.8
1983	395.5	359.8	38.4	88.9
1984	424.9	385.8	41.4	92.1
1985(e)	445.5(e)	493.9(e)	43.9(e)	93.7(e)

(e) - estimated.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

Water power was and is still the traditional source of electrical power generation in Canada. In 1985, some 67 percent of total Canadian electricity came from hydro plants, mainly in Quebec and Ontario, and to a lesser extent in Manitoba and B.C. About 20 percent came from conventional thermal plants, fuelled by coal, oil and natural gas. These power plants are situated mainly in the Maritimes, the Prairies and B.C. The remaining 13 percent was produced in nuclear power plants, all of which utilize the Canadian-designed Candu reactor.

The trend towards the development of thermal power stations, which began in the 1950's will continue for some time into the future. There have been recent advances in extra-high voltage transmission techniques which permit the development of hydroelectric sites previously considered too remote. Such advances are not likely to bring about a significant resurgence in this source of electrical power generation in Canada.

3.2 Supply of Electricity

Electric energy is supplied by three sources in Canada. Investor-owned and public utilities are the primary sources, with a small number of industrially-owned generation facilities.

The industrial establishments generate energy mainly for their own use, but a few sell their surplus energy to municipal distribution systems or utilities. Public and investor-owned utilities supply about 90 percent of Canada's electricity.

Industrial establishments supply, on average, 80 percent of their own total requirements. About 54 percent of these plants are in the forest products industry, 15 percent in mining and 11 percent in metal processing. Approximately 80 percent of the industrial establishments with generation facilities are located in Quebec, Ontario and British Columbia. This reflects the concentration of forest products, mining and aluminum smelting companies in these provinces. Nearly 90 percent of the electricity generated by industrial establishments is from hydro-sources.

Greater public ownership of electric utilities has been the trend in Canada, as provincial governments have taken over most investor-owned electric utilities. Consolidation of the sources of supply contributes to efficiency, and the provincial guarantee of debt lowers the costs of financing. This results in lower electricity supply costs. The major electric utilities in each province and territory are publicly-owned, except in Prince Edward Island and Alberta. An investor-owned utility supplies most of the electricity in Newfoundland.

In Alberta, two investor-owned utilities provide approximately 80 percent of the provincial supply; municipally-owned utilities supply most of the remainder. The Alberta Electricity Marketing Board will introduce price uniformity for consumers served by the different utilities. The Board, which began operating in September 1982, will reduce price differences by averaging generation and transmission costs. Price differentials due to distribution cost differences will remain.

One investor-owned utility distributes 86 percent of the electricity used in Newfoundland, including about 90 percent of electricity used for residential purposes. It purchases about 85 percent of this electricity from the publicly-owned Newfoundland Hydro.

In the Yukon and Northwest Territories, the federally-owned Northern Canada Power Commission generates and distributes most of the electricity supplied. Two investor-owned utilities supply most of the remainder.

In all provinces but one, most of the electricity is distributed to consumers by the major utilities. The exception is Ontario, where a large proportion is purchased from Ontario Hydro and distributed by some 320 municipal utilities.

Hydro-Quebec, Ontario Hydro and British Columbia Hydro are the three largest electric utilities in Canada. In 1981, Hydro Quebec and Ontario Hydro ranked second and fifth, respectively, in terms of net income, among North American utilities. Together, these two utilities account for approximately 65 percent of the total assets and revenues of the Canadian electric utilities.

3.3 Comparative Domestic Electricity Costs

Comparative prices for commercial and industrial users of electricity are shown for September 1985 in Table 5. Costs are lowest in Manitoba and highest in P.E.I., where there is no hydro-electric generation. Abundant supplies of coal in Alberta and B.C. and low-priced natural gas in Alberta keep prices down. Inexpensive hydro power in Ontario and Quebec helps offset the more expensive nuclear-generated power, resulting in relatively cheap power in those provinces. It should be noted that large industrial consumers of electricity may negotiate individual rate agreements as to rates in many provinces.

TABLE 5

COMPARATIVE DOMESTIC PRICES* FOR ELECTRICITY

	Commercial 1000 KW Demand 500,000 KWH Consumption	Industrial 5000 KW Demand 3.1 MWH Consumption
	(¢/KWH)	
Newfoundland	5.23	4.92
Prince Edward Island	11.44	10.62
Nova Scotia	6.20	4.33
New Brunswick	6.47	4.24
Quebec	4.03	2.86
Ontario	4.24	3.85
Manitoba	3.02	2.52
Saskatchewan	4.94	4.51
Alberta	3.80	3.17
British Columbia	4.00	3.15
Canada average	4.27	3.42

* September, 1985.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

Table 6 shows typical monthly electricity costs for residential, commercial and industrial users in 14 Canadian cities.

TABLE 6

TYPICAL MONTHLY ELECTRICITY COSTS FOR SELECTED CANADIAN CITIES, JANUARY 1, 1985

Sector	Residential	Commercial	Industrial
Billing demand (1) (KW)	-	100	1000
Consumption (KWH)	1000	25000	400000
	---Dollars---		
Vancouver	51.41	1,284.37	15,462.10
Calgary	50.48	1,469.71	16,949.39
Edmonton	48.30	1,458.40	18,644.52
Regina	47.26	1,497.20	19,009.70
Winnipeg	36.44	963.25	10,940.77
Toronto	50.91	1,564.00	18,970.00
Ottawa	45.36	1,184.18	16,814.18
Montreal	37.07	1,334.10	15,492.80
Moncton	57.43	1,948.12	19,480.00
Halifax	65.22	2,047.21	21,134.61
Charlottetown	116.62	3,419.56	44,359.86
St. John's	64.73	1,889.50	24,090.62
Whitehorse	66.30	2,205.00	n.a.
Yellowknife	95.00	3,255.50	48,605.00

n.a. - not applicable.

Source: Statistics Canada Electricity Bills, (Cat. #57-203).

(1) Electricity costs for commercial and industrial accounts are based on a dual meter system. One meter registers the peak load of electricity used during the period (billing demand) and the second meter registers actual consumption during the period.

3.4 International Comparisons

Canada is a comparatively inexpensive source of electrical energy. Fourteen city-to-city comparisons in Canada and the U.S., according to data compiled by the Montreal Urban Community, are shown in Table 7. Compared to Winnipeg, the lowest cost centre shown, Houston is over three times more expensive, and New York is almost six times more costly. Even St. John's, Newfoundland, the most expensive Canadian location shown is 34 percent lower in industrial electricity costs than Houston and 64 percent lower than New York.

4. NATURAL GAS

Natural gas has only been produced for interprovincial shipment for about the last two decades, but it quickly became an important component of Canada's energy supply, accounting for some 20 percent of the total.

TABLE 7

COMPARATIVE INDUSTRIAL ELECTRICITY COSTS*, 1985

(Montreal = 100)

City	Ratio
Winnipeg	69
Vancouver	97
Montreal	100
Regina	119
Toronto	119
Edmonton	121
Halifax	132
St. John's	145
Houston	220
Chicago	299
Detroit	250
Boston	281
San Francisco	283
New York	406

* Based on service of 200,000 kwh/month, at 600V and 500 kw utilization.

Source: Montreal Urban Community Office of Economic Expansion, Décision: Montréal.

Most of Canada's natural gas contains significant quantities of such liquid hydrocarbons as propane, ethane, butane and pentanes plus "natural gasoline". As a result, a large gas processing industry has developed in Canada. The expansion of natural gas pipeline systems has been extremely rapid, with the mileage of gathering and transmission lines tripling in a decade. The longest gas transmission line stretches from the Alberta-Saskatchewan border to Montreal.

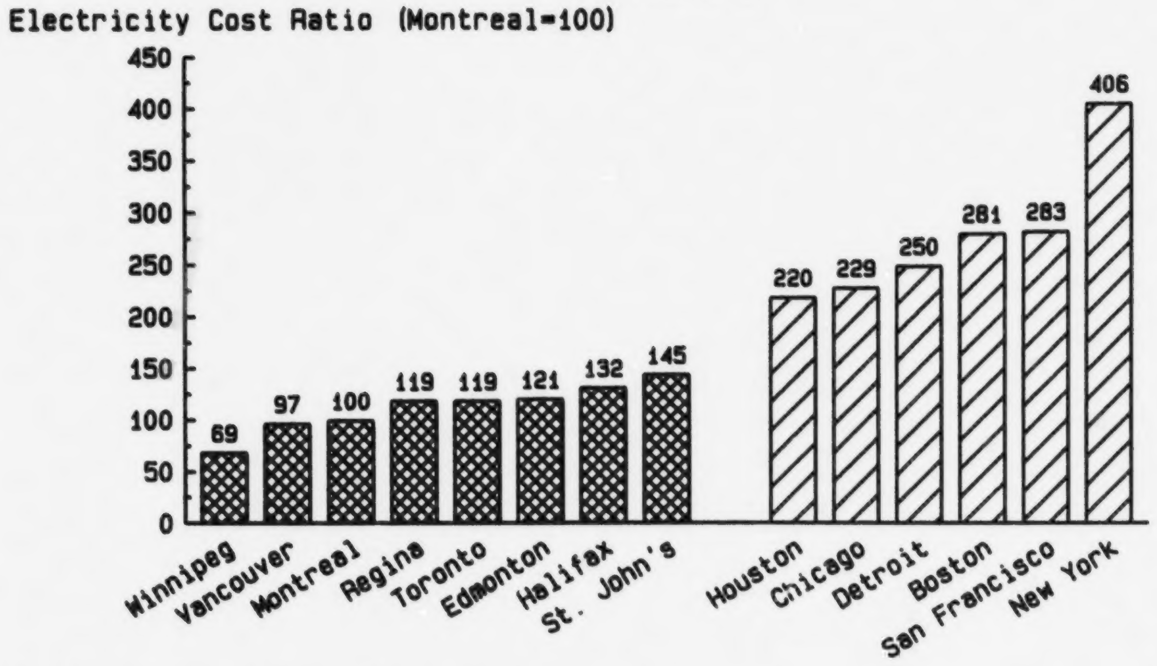
Alberta produces about 88 percent of the country's natural gas output, British Columbia about 8 percent, Saskatchewan about 3 percent and Ontario about one percent. Small quantities for local use are produced in New Brunswick, Quebec and the Northwest Territories.

4.1 Production, Consumption and Reserves

Annual production of natural gas was relatively stable from 1980 to 1982, averaging 77 billion cubic metres per year. In 1983, output dropped to 72.5 billion m^3, but rose in 1984 by 9.5 percent, to 79.4 billion m^3. Domestic consumption was stable between 1981 and 1983, averaging about 53.4 billion m^3. In 1984, domestic sales rose by 8.3 percent to 57.6 billion m^3. Exports were stable from 1980 to 1984, averaging 21.6 billion m^3, rising by an estimated 26.0 percent to 27.1 billion m^3.

Reserves rose at an annual average rate of 3 percent, from 2.5 trillion m^3 in 1980 to 2.8 trillion m^3 in 1984.

Comparative Cost of Electricity
Canadian and U.S. Cities
1985



Source: Montreal Urban Community,
Department of Economic Expansion.

TABLE 8

NATURAL GAS PRODUCTION AND CONSUMPTION IN CANADA

	Annual Production	Domestic Consumption	Exports	Year-end Reserves
	(billion metres^3)			
1980	78.5	56.3	22.6	2492
1981	75.5	53.4	21.6	2563
1982	77.1	53.7	22.2	2591
1983	72.5	53.2	20.2	2613
1984	79.4	57.6	21.4	2809
1985*	87.7	61.2	27.1	n/a

* Estimated.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

4.2 Comparative Domestic Costs

Table 9 illustrates costs for commercial and industrial natural gas users for the provinces of Quebec and westward. The price in Alberta, from where most of the product is sourced, is significantly lower, at $1.02 and $0.78 for commercial and industrial use respectively. The price rises with distance - a result of higher transmission costs.

TABLE 9

COMPARATIVE DOMESTIC COSTS FOR NATURAL GAS (1985)

	Commercial		Industrial	
	$ per 10 cubic metres (1000 cubic feet)			
Quebec	2.35	(6.66)	1.69	(4.79)
Ontario	1.90	(5.38)	1.54	(4.36)
Manitoba	1.61	(4.56)	1.28	(3.62)
Saskatchewan	1.43	(4.05)	1.27	(3.60)
Alberta	1.02	(2.89)	0.78	(2.21)
British Columbia	1.68	(4.76)	1.26	(3.57)
Canada	1.61	(4.56)	1.20	(3.40)

Source: Energy, Mines & Resources, Energy Statistics Handbook.

4.3 International Comparisons

As with electricity costs, Canadian locations offer significant savings to users of natural gas, ranging from about 60 percent over Tokyo, to 20 percent over Paris and Dallas. Table 10 compares natural gas costs in 14 cities in 7 countries.

TABLE 10

COMPARATIVE INDUSTRIAL NATURAL GAS COSTS*, 1984
(Montreal = 100)

City	Ratio
Vancouver	71
Toronto	88
Montreal	100
Atlanta	152
Boston	202
Chicago	114
Dallas	106
Los Angeles	197
New York	162
Dusseldorf	148
London	131
Milan	154
Paris	105
Tokyo	235

* At a consumption rate of 425,000m^3/month.

Source: Montreal Urban Community, Office of Economic Development, Décision: Montréal.

5. COAL

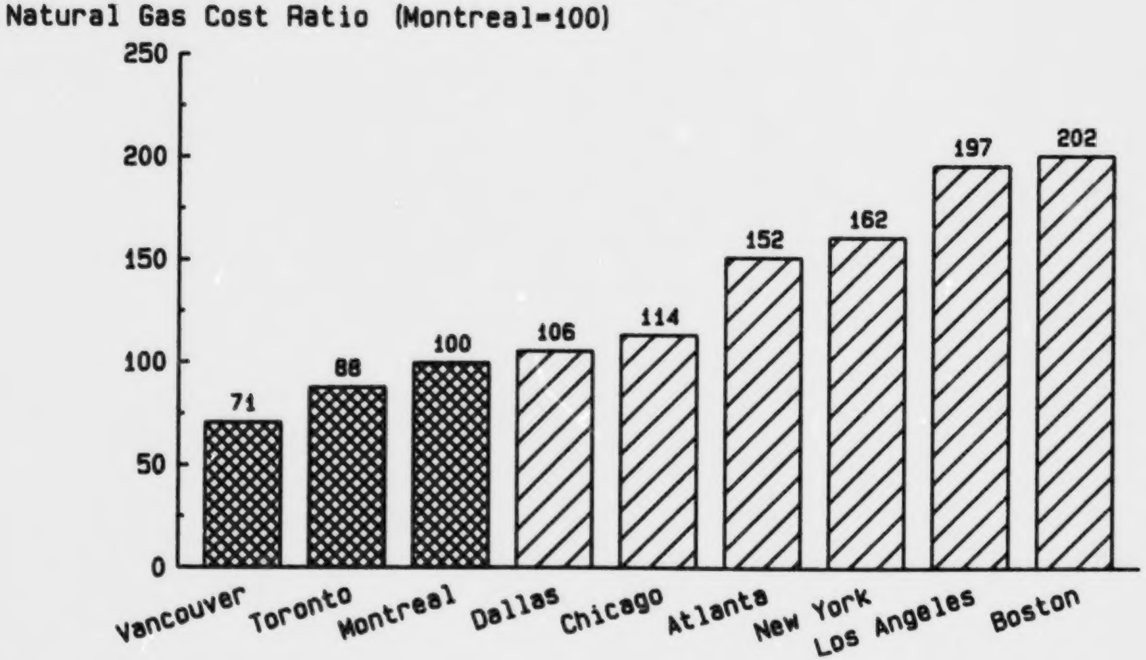
Coal is used in Canada primarily by utilities (over 95percent) to generate electric power. Its use for residential and commercial heating has largely been replaced by natural gas, oil and electricity.

Canada's vast coal reserves are located primarily in British Columbia, Alberta, Saskatchewan, New Brunswick and Nova Scotia. Canadian coal is of high quality, which can be used to produce coke for the manufacture of steel, and is found in abundance in Alberta and B.C. Canada's coal exports to Japan are significant. A special port facility is in place at Robert's Bank, outside Vancouver, to handle the special unit trains which quickly load and unload the coal. The B.C. port of Prince Rupert also ships significant amounts of coal to Japan.

5.1 Production and Consumption

The value of coal production in Canada doubled from 1980 to 1984, from $942 million to over $1.8 billion. Production tonnage rose from 1980 to 1985 by 69.3 percent, at an annual average rate of 10.5 percent. The production of bituminous coal, which accounts for about 56 percent of the total, increased at an annual average rate of 11.1 percent, compared with 9.5 percent for sub-bituminous coal which makes up some 27 percent of the total, and 10.3 percent for lignite which accounts for the remainder. Bituminous is used for the manufacture of steel and for power generation, while sub-bituminous and lignite are used only for thermal purposes.

Comparative Cost of Natural Gas Canadian and U.S. Cities 1984



Source: Montreal Urban Community,
Department of Economic Expansion.

TABLE 11

PRODUCTION OF COAL IN CANADA, BY TYPE

Period	Production: Bituminous	Production: Sub-bituminous	Lignite	Total	Total Value $ millions
	kilotonnes*				
1980	20151	10542	5971	36664	942
1981	21739	11551	6798	40088	1118
1982	22296	13021	7494	42811	1352
1983	22556	14464	7760	44780	1339
1984	32062	15222	9918	57402	1813 (p)
1985**	34110	16620	9745	60480	n/a

* 1 kilotonne = 1100 tons.
** estimate.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

Domestic coal is consumed primarily for power generation. Table 12 illustrates domestic coal consumption by end use. In addition, there were exports to Japan, South Korea and other countries. Imported coal is used for the manufacture of steel in central and eastern Canada.

TABLE 12

DOMESTIC COAL CONSUMPTION BY TYPE OF USER

Period	Consumption by: Utilities Kilotonnes*	%	Steel Plants Kilotonnes*	%	Other Kilotonnes*	%	Total Kilotonnes*
1980	27782	74.4	7241	19.4	2310	6.2	37333
1981	29813	77.7	6377	16.6	2177	5.7	38367
1982	33655	81.1	5576	13.5	2246	5.4	41477
1983	36216	83.0	5583	12.8	1850	4.2	43649
1984	40208	82.6	6542	13.4	1949	4.0	48699
1985**	39000	81.8	6700	14.0	2000	4.2	47763

* 1 kilotonne = 1100 tons.
** estimate.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

Consumption by province is shown in Table 13. While Ontario and Alberta are the largest users in Canada, Ontario's share declined, from 48 percent in 1980, to 43 percent in 1985, while Alberta's rose during the same period from 28 percent to 33 percent. Alberta uses coal almost exclusively for thermal power generation. Ontario's uses include thermal power, steel production and other general industry uses.

TABLE 13

DOMESTIC COAL CONSUMPTION BY PROVINCE

	1980	1981	1982	1983	1984	1985**
			(Kilotonnes*)			
Newfoundland	15	11	18	n/a	n/a	n/a
Nova Scotia	2100	1977	1872	1751	2169	2125
New Brunswick	362	549	578	577	610	598
Quebec	595	498	452	411	479	469
Ontario	17756	17695	18446	19180	20720	20296
Manitoba	555	591	429	301	373	366
Saskatchewan	5248	5293	6259	6881	8160	7993
Alberta	10518	11518	13352	14492	16123	15792
British Columbia	177	236	71	55	65	64
Canada	37333	38367	41477	43649	48699	47703

* 1 kilotonne = 1100 tons.
** estimate.
n.a. - not available.

Source: Energy, Mines & Resources, Energy Statistics Handbook.

TRANSPORTATION

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TRANSPORTATION

Canada's transportation needs are satisfied by an excellent network of airports, railway lines, seaports and paved highways. Every region in Canada is served by this still-expanding system, which compares favourably with any in the world. Competition within the industry is intense and customers have a wide range of options.

Deregulation

As part of the new co-operative spirit existing between government and business, certain industries have been marked for deregulation. It is expected that Transport Canada Minister Don Mazankowski, will soon introduce in the House a package of deregulation proposals affecting airlines, rail freight, trucking and shipping. Deregulation has already occurred, to some extent, in the oil and gas industry, passenger air service, and in the field of telecommunications (consumers are able to purchase telephone equipment from companies other than Bell Canada), and in the trucking industry. There is also much discussion about privatizing certain crown corporations or certain components of crown corporations. Northern Transportation Company Limited, a crown owned marine transportation company operating in northern Canada and the Arctic was sold to private interests in the summer of 1985.

1. AIR

There are 151 airports in Canada owned by Transport Canada. These are listed in Appendix I. Ten of these are international airports, located at Calgary, Edmonton, Gander, Halifax, Mirabel, Montreal, Ottawa, Toronto, Vancouver and Victoria.

Scheduled air services are offered by 2 national airlines, Air Canada and Canadian Pacific Airlines. These are supplemented by several large regional carriers, including Pacific Western Airlines, Nordair, Quebecair, and Northwest Airlines, as well as several hundred limited destination and charter carriers, mostly operating between fewer than 5 regular destinations. Regular international service is offered by Air Canada, Canadian Pacific Airlines, Nordair, Pacific Western Airlines and Wardair, plus a few other smaller carriers.

Air travel times between major Canadian centres is shown in Table 1. Including one obligatory stop-over, the scheduled time to traverse Canada from east to west (or vice versa) is eight hours, twelve minutes. Toronto, on the other hand, is only one hour from Montreal and four hours from Edmonton.

Airline deregulation has resulted in savings to both passengers and shippers.

2. RAILROADS

Historically, railroads have played a central role in the development of Canada. In 1984, there were some 95,000 km (59,000 miles) of track. Two trans-continental railroads, the Canadian National and Canadian Pacific, serve the country from coast to coast, supplemented by a number of smaller, regional railroads.

TABLE 1

AIR TRAVEL TIMES

(hours : minutes)

	Halifax	Montreal	Toronto	Winnipeg	Edmonton
Montreal	1:35				
Toronto	2:19	1:08			
Winnipeg	5:43*	2:55	2:33		
Edmonton	7:10*	5:00*	4:00	2:02	
Vancouver	8:12*	5:20	4:55	3:00	1:23

* Includes one enroute or connection stop.

Source: Air Canada (January 1986).

Inter-city passenger services are provided by VIA Rail, which is operated nationally, and a number of provincially-operated concerns. The western and prairie portions of the system are presently being twinned, that is, new track is being laid beside existing track to facilitate trains moving in both east and west directions simultaneously. Currently, with trains going in both directions on a single track, there is significant unproductive time while trains sit on sidings awaiting passage of others. Track twinning will eliminate the downtime and result in quicker service and increased flowthrough of product.

Distances between selected points are shown in Tables 2 and 2A.

TABLE 2

SELECTED CITY-TO-CITY DISTANCES, BY RAIL

(km)

	Halifax	Montreal	Ottawa	Toronto	Winnipeg	Vancouver
Halifax		1352	1539	1891	3880	6251
Quebec City	1101	251	438	790	2779	5150
Montreal	1352		187	539	2528	4899
Ottawa	1539	187		446	2341	4712
Toronto	1891	539	446		1989	4360
Niagara Falls	2023	691	578	132	2121	4492
Sarnia	2171	819	726	280	2269	4640
Windsor	2250	898	805	359	2348	4719
Winnipeg	3880	2528	2341	1989		2371
Regina	4454	3102	2915	2563	574	1797
Calgary	5220	3868	3681	3329	1340	1031
Vancouver	6251	4899	4712	4360	2371	

TABLE 2A

SELECTED CITY-TO-CITY DISTANCES, BY RAIL
(miles)

	Halifax	Montreal	Ottawa	Toronto	Winnipeg	Vancouver
Halifax		840	956	1175	2411	3885
Quebec City	684	156	272	491	1727	3201
Montreal	840		116	335	1571	3045
Ottawa	956	116		277	1455	2929
Toronto	1175	335	277		1236	2710
Niagara Falls	1257	429	359	82	1318	2792
Sarnia	1349	509	451	174	1410	2884
Windsor	1398	558	500	223	1459	2933
Winnipeg	2411	1571	1455	1236		1474
Regina	2768	1928	1812	1593	357	1117
Calgary	3244	2404	2288	2069	833	641
Vancouver	3885	3045	2929	2710	1474	

In 1984, a total of 255 million metric tonnes (280 million tons) were shipped by rail in Canada, up 15.1% from 1983. Table 3 below lists freight traffic, by province, in 1984.

TABLE 3

RAILWAY FREIGHT TRAFFIC BY PROVINCE, 1984

Province	million tonnes*	% of total
Newfoundland	18.7	7.3
Prince Edward Island	0.1	**
Nova Scotia	11.6	4.6
New Brunswick	4.1	1.6
Quebec	39.0	15.3
Ontario	50.5	19.8
Manitoba	9.9	3.9
Saskatchewan	33.1	13.0
Alberta	37.5	14.7
British Columbia	49.8	19.6
Yukon & N.W.T.	0.3	0.1
	254.6	100.0

* 1 tonne = 1.1 tons
** less than 0.05 percent

Source: Statistics Canada, Railway Freight Traffic.

Deregulation of railroad freight rates has not yet occurred in Canada; however, recommendations put forward to the Minister of Transport are currently under consideration.

3. MARINE

Canada is bounded by the Pacific Ocean on the west, the Atlantic Ocean on the east, and the Arctic Ocean and Hudson Bay on the north. The Great Lakes and St. Lawrence Seaway system serve as a gateway to and from the interior.

Canada has 24 deep water ports and some 650 smaller ports and government wharves. The 15 ports and 9 harbours are administered by Ports Canada or specific harbour commissions listed in Appendix II; the 650 smaller facilities by the Canadian Marine Transportation Administration. The Department of Fisheries and Oceans Canada administers another 2,000 fishing harbours and recreational facilities.

The St. Lawrence Seaway is administered by the St. Lawrence Seaway Authority. Extending from Lake Superior, through the Great Lakes via a system of canals and locks, the Seaway runs along the St. Lawrence River to the Atlantic Ocean. A description of the Seaway is provided in Appendix III, along with Seaway tolls. In 1984, the Welland Canal section of the Seaway handled over 53.9 million tonnes (59.2 million tons) of cargo, while the Montreal-Lake Ontario section conveyed 47.5 million tonnes (52.3 million tons).

The Directory of Ocean Shipping Services, published by DRIE, lists shipping companies serving Canada, the types of services they provide and destinations. It is available, at no charge, from the Department of Regional Industrial Expansion, Business Centre, 235 Queen Street, Ottawa, Ontario, K1A 0H5.

During 1984, a total of 205.5 million metric tonnes (226 tons) of merchandise of international origin was loaded and unloaded at Canadian ports. Loadings totalled 145.3 million tonnes (159.9 million tons), while unloadings amounted to 60.1 million tonnes (66.1 million tons).

Table 4 lists the major points of origin and destination.

TABLE 4

MAJOR LOADINGS & UNLOADINGS OF INTERNATIONAL FREIGHT

AT CANADIAN PORTS, BY DESTINATION AND COUNTRY OF ORIGIN, 1984

Destination	1000 tonnes*	% of total
A. LOADINGS		
Algeria	1117	0.8
Australia	1453	1.8
Belgium-Luxembourg	3896	2.7
Brazil	3810	2.6
Cuba	1325	0.9
France	3176	2.1
Democratic Republic of Germany (East)	1216	0.8
Federal Republic of Germany (West)	3247	2.2
India	1683	1.2

Table 4 continued

Destination	1000 tonnes*	% of total
Italy	2579	1.8
Japan	32757	22.5
South Korea	5434	3.7
Netherlands	7900	5.4
Peoples Republic of China	5490	3.8
Taiwan	1783	1.2
United Kingdom	7196	5.0
United States of America	35711	24.6
Union of Soviet Socialist Republics	9310	6.4
Other	16239	11.2
TOTAL	145322	100.0
B. UNLOADINGS		
Algeria	845	1.4
Australia	821	1.4
Bahamas	666	1.1
Belgium-Luxembourg	1917	3.2
Brazil	1924	3.2
Federal Republic of Germany (West)	907	1.5
Jamaica	508	0.9
Japan	1082	1.8
Mexico	1519	2.5
Netherlands	620	1.0
Nigeria	875	1.5
Trinidad-Tobago	610	1.0
United Kingdom	2261	3.8
United States of America	36378	60.6
Venezuela	3785	6.3
Other	5355	8.9
Total	60073	100.0

* 1000 tonnes = 1100 tons

Source: Statistics Canada, International Seaborne Shipping Port Statistics, 1984 (Cat. #54-209).

Domestic shipping, that is, freight originating from and destined to Canadian ports, amounted to 137.4 million metric tonnes (151.1 million tons) in 1984. Port activity, by province, is shown in Table 5.

4. CONTAINERS

The ports of Montreal, Vancouver, Halifax and Saint John are the prime container ports in Canada. Lesser numbers of containers are handled at Toronto, Hamilton, Quebec City, Trois-Rivières and St. John's. Although almost any Transport Canada port has the ability to ship containers, those listed above conduct almost all the marine container traffic in Canada.

TABLE 5

LOADINGS & UNLOADINGS OF DOMESTIC FREIGHT, BY PROVINCE, 1984

Province	k tonnes* loaded and unloaded	% of total
Newfoundland	2398	1.8
Prince Edward Island	506	0.4
Nova Scotia	7165	5.2
New Brunswick	3173	2.3
Quebec	40051	29.2
Ontario	44470	32.4
Manitoba	29	0.0
British Columbia	39480	28.7
Northwest Territories	125	0.1
TOTAL	137397	100.0

*1 kilotonne = 1100 tons

Source: Statistics Canada, Coastwide Shipping Statistics, 1984 (Cat. #54-210)

5. HIGHWAYS

The Canadian system of roads and highways is one of the best in the world, linking Canadian centers, and joining in an extensive north-south system servicing all of North America. The total of inter-city paved roads extends to 271,417 km (168,687 miles), including federal and provincial roads. About 28 percent of this total represents 2- or 4-lane limited-access highways designed to move large volumes of traffic at highway speed. Not included in these totals are non-highway roads within municipalities.

There were 14.6 million motor vehicles registered in Canada in 1983, up 2.2 percent from 1982. A breakdown, by type, is shown in Table 6.

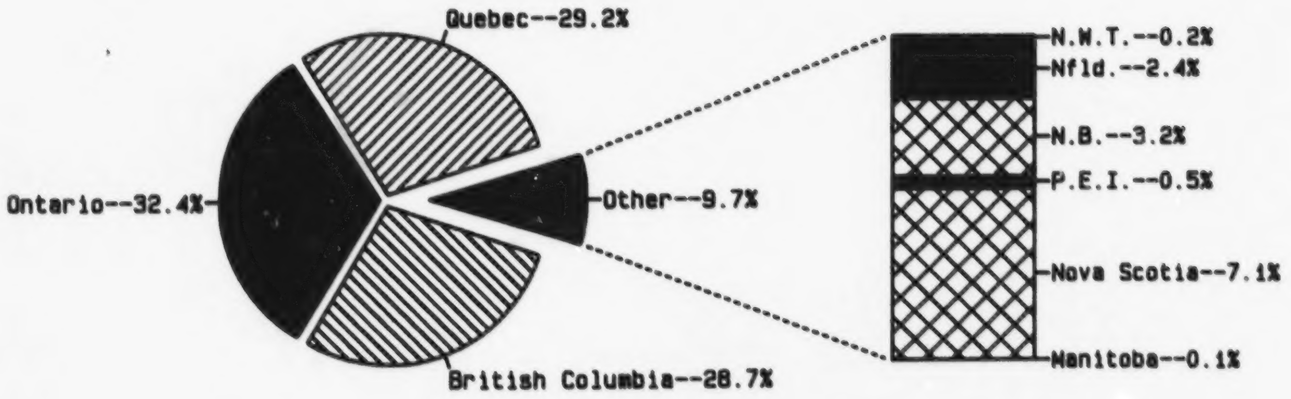
TABLE 6

ROAD MOTOR VEHICLE REGISTRATIONS

Type	1982		1983		% Change
	No.	%	No.		%
Passenger Automobiles	10530	73.9	10732	73.7	1.9
Trucks and Buses	3293	23.1	3363	23.1	2.1
Motorcycles	431	3.0	466	3.2	8.1
Total	14254	100.0	14561	100.0	2.2

Source: Statistics Canada, Road Motor Vehicles, 1983 (Cat.#53-219).

Domestic Freight Handled by Province – 1984



Total 1984
(137.4 Million Tonnes)

Other Provinces & N.W.T.
(13.4 Million Tonnes)

Source: Statistics Canada,
Coastwide Shipping Statistics, 1984.

In 1982, some 4541 establishments providing freight hauling and household moving services by truck reported total operating revenues of $5.6 billion. Total pieces of equipment on the road numbered 133,523.

A Statistics Canada for hire trucking survey estimated that a total of 129.5 million metric tonnes (142.5 million tons) of freight were hauled in Canada in 1980.

6. PIPELINES

Canada has major oil and natural gas pipeline systems which transport products from the fields in Alberta, Saskatchewan, British Columbia and the Northwest Territories. Oil is distributed to British Columbia and the Pacific coast via the Trans-Mountain Pipeline, and from Alberta to the east as far as Montreal in Canada and Portland, Maine in the U.S. via the Interprovincial Pipeline. Natural gas is distributed from Alberta west via the Westcoast Transmission Pipeline and east to Quebec City, through the Trans-Canada Pipeline.

Oil and gas are exported to the U.S. via pipelines from Alberta, Saskatchewan, Manitoba and Quebec.

Proposed additions to the system would have Alaskan oil transported through the Northwest Territories and Yukon to Edmonton, where it would feed into the interprovincial system. A second oil pipeline proposal would twin the Trans-Mountain line, but would have its terminus in Washington state instead of Vancouver.

Two proposed gas pipelines would route Arctic gas through Edmonton, for export to the U.S., and across the Northwest Territories, northern Saskatchewan, Manitoba, and Ontario to link with the Trans-Canada line, east of Thunder Bay.

7. FREIGHT RATES

Freight rates vary considerably according to destination, weight, type of product, volume and mode of transport. The advice and expertise of a freight forwarder could produce the most efficient and cost-effective solutions to individual transportation problems. Freight forwarders are also able to combine shipments to common destinations, thereby qualifying smaller loads for weight and/or volume discounts otherwise not available. A list of Canadian-based freight forwarders can be found in the Canadian Trade Index.

7.1 Air Cargo

Tables 7, 7A and 7B list standard air cargo shipping rates. Specific commodity rates may differ. Prices will vary according to volume, frequency, destination and the nature of the cargo.

TABLE 7

TYPICAL AIR CARGO RATES WITHIN CANADA

(Canadian dollars)

ORIGIN	DESTINATION	MINIMUM CHARGE	LESS THAN 45 KILOS	45-100 KILOS	MORE THAN 500 KILOS
Vancouver	Winnipeg	24.50	2.16	2.00	1.77
	Toronto	23.50	1.08	.89	.67
	Montreal	24.50	2.22	2.03	1.81
	Halifax	27.00	2.51	2.30	2.09
Winnipeg	Vancouver	24.50	2.16	2.00	1.77
	Toronto	24.50	1.47	1.28	1.07
	Montreal	24.50	1.61	1.43	1.21
	Halifax	26.00	1.85	1.66	1.45
Toronto	Vancouver	23.50	1.08	.89	.67
	Winnipeg	24.50	1.47	1.28	1.07
	Montreal	23.50	1.14	.95	.72
	Halifax	26.00	1.41	1.21	.99
Montreal	Vancouver	24.50	2.22	2.03	1.81
	Winnipeg	24.50	1.61	1.43	1.21
	Toronto	23.50	1.14	.95	.72
	Halifax	26.00	1.23	1.01	.79
Halifax	Vancouver	27.00	2.51	2.30	2.09
	Winnipeg	26.00	1.85	1.66	1.45
	Toronto	26.00	1.41	1.21	.99
	Montreal	26.00	1.23	1.01	.79

Source: Air Canada

TABLE 7A

TYPICAL AIR CARGO RATES, CANADA TO U.S.A.

PRICE/KILO

(Canadian dollars)

ORIGIN	DESTINATION	MINIMUM CHARGE	LESS THAN 45 KILOS	45-100 KILOS	MORE THAN 500 KILOS
Vancouver	Los Angeles	37.25	2.62	1.80	1.54
	San Francisco	24.00	1.21	1.01	n/a
	Chicago	35.25	2.89	1.86	1.64
	Denver	26.00	.84	.67	n/a
Winnipeg	Los Angeles	37.55	2.62	1.80	1.54
	San Francisco	29.90	1.80	1.40	n/a
	Chicago	27.00	1.72	1.44	1.40
Toronto	New York	23.93	.63	.56	n/a
	Boston	24.96	.73	.68	.49
	Chicago	25.00	1.16	.86	.67
	Miami	28.00	1.82	1.21	1.11
Montreal	New York	23.00	.93	.63	.56
	Boston	24.00	.93	.61	.54
	Chicago	29.00	.70	.43	n/a
	Miami	29.00	2.06	1.48	1.39
Halifax	New York	26.05	1.45	1.27	1.14
	Boston	26.05	1.20	.88	n/a
	Chicago	27.20	2.01	1.67	1.47

Source: Air Canada, Canadian Pacific Airlines

TABLE 7B

TYPICAL AIR CARGO RATES, SELECTED INTERNATIONAL DESTINATIONS

PRICE/KILO

(Canadian dollars)

ORIGIN	DESTINATION	MINIMUM CHARGE	LESS THAN 45 KILOS	45-100 KILOS	MORE THAN 500 KILOS
Vancouver	Tokyo	65.00	8.28	6.30	3.97
	Soeul	65.00	8.93	7.14	4.46
	Hong Kong	65.00	8.98	6.84	2.82
	Shanghai	65.00	8.41	8.41	2.82
	Sydney	65.00	12.17	9.22	7.54
Winnipeg	London	65.00	8.80	7.12	3.10
	Paris	70.00	8.70	7.08	3.12
	Tokyo	65.00	9.85	7.51	4.69
	Seoul	65.00	10.44	8.35	5.22
	Hong Kong	65.00	10.54	8.03	3.24
Toronto	London	65.00	7.90	6.34	2.56
	Paris	70.00	7.80	6.30	2.58
	Hong Kong	70.00	10.58	8.08	3.36
	Jeddah	70.00	11.93	9.07	5.94
	Tokyo	70.00	9.86	7.50	4.73
Montreal	London	65.00	7.90	6.34	2.56
	Paris	70.00	7.80	6.30	2.58
	Amsterdam	65.00	7.78	6.28	2.56
	Singapore	65.00	11.44	n/a	2.58
	Tokyo	65.00	9.92	7.56	4.73
Halifax	London	65.00	7.80	6.29	2.52
	Paris	70.00	7.70	6.25	2.54
	Amsterdam	65.00	7.68	6.23	2.53
	Madrid	65.00	7.70	6.25	2.54
	Copenhagen	65.00	7.82	6.37	2.66

Sources: Air Canada, Canadian Pacific Airlines, KLM

Distances between major centres by air are shown in Tables 8, 8A and 8B.

TABLE 8

AIR DISTANCES WITHIN CANADA

(AIRPORT TO AIRPORT)

ORIGIN	DESTINATION	KILOMETERS	MILES
Vancouver	Winnipeg	1862	1157
	Toronto	3342	2077
	Montreal	3649	2286
	Halifax	4425	2749
Winnipeg	Vancouver	1862	1157
	Toronto	1502	933
	Montreal	1816	1128
	Halifax	2574	1599
Toronto	Vancouver	3342	2077
	Winnipeg	1502	933
	Montreal	506	315
	Halifax	1287	799
Montreal	Vancouver	3649	2286
	Winnipeg	1816	1128
	Toronto	506	315
	Halifax	803	500
Halifax	Vancouver	4425	2749
	Winnipeg	2574	1599
	Toronto	1287	799
	Montreal	803	500

NOTE: Air carriers require a minimum of one day for cargo shipment to the United States. Depending on volume and destination, more time may be involved. Where direct flights (with stopovers) do not service the destination, up to three days may be required. As well as actual air time, extra time required for customs clearance will determine total time for transport.

TABLE 8A

AIR DISTANCES WITHIN NORTH AMERICA

(AIRPORT TO AIRPORT)

ORIGIN	DESTINATION	KILOMETERS	MILES
Vancouver	Los Angeles	1739	1080
	San Francisco	1286	799
	Chicago	2828	1757
Winnipeg	San Francisco	2417	1502
	New York	2092	1299
	Chicago	1137	707
	Detroit	1461	907
Toronto	Chicago	7090	435
	St. Louis	1050	653
	Houston	2060	1280
	New York	589	366
	Miami	1988	1235
Montreal	New York	536	333
	Chicago	1198	745
	Denver	2606	1619
	Houston	2548	1583
	Miami	2264	1406
Halifax	New York	959	597
	Boston	659	409
	Chicago	1986	1234
	Miami	2597	1614

NOTE: Air carriers require a minimum of one day for cargo shipment to the United States. Depending on volume and destination, more time may be involved. Where direct flights (with stopovers) do not service the destination, up to three days may be required. As well as actual air time, extra time required for customs clearance will determine total time for transport.

TABLE 8B

AIR DISTANCES OVERSEAS

(AIRPORT TO AIRPORT)

ORIGIN	DESTINATION	MILES	KILOMETERS
Vancouver	Tokyo	4695	7556
	Shanghai	5616	90389
	Hong Kong	6366	10245
	Manila	6559	10554
	Jakarta	8288	13339
Winnipeg	Tokyo	5584	8986
	Singapore	8679	13976
	London	3928	6321
	Amsterdam	4035	6494
	Frankfurt	4262	6861
Toronto	Tokyo	6428	10345
	Hong Kong	7788	12533
	London	3545	5704
	Frankfurt	3939	6340
	Rome	4414	7104
Montreal	Paris	3430	5519
	Frankfurt	3636	5851
	Buenos Aires	5624	9051
	Tokyo	6437	10360
	Jakarta	9712	15631
Halifax	London	2848	4584
	Paris	3027	4872
	Frankfurt	3251	5233
	Madrid	2989	4811
	Rome	3683	5926

NOTE: Air carriers require a minimum of one day for cargo shipment to the U.S. Depending on volume and destination, more time may be involved. Where direct flights (with stopovers) do not service the destination, up to three days may be required. As well as actual air time, extra time required for customs clearance will determine total time for transport.

7.2 Marine

As in other international ports, the liner market in and out of Canada is dominated by self-regulated conferences which set common rates for all members, rationalizing capacity and controlling competition.

Generally speaking, the liner tariffs published by shipping conferences are both voluminous and complicated. In addition to pages of rules and regulations concerning the application of rates and surcharges, a vast variety of rates are quoted for different commodities. Liner rates on a particular route can be widely different between various types of commodities and services. Rate differentials are due to three main factors: institution, cost and demand.

The difference between contract and non-contract rates arises from certain customers signing a loyalty or patronage contract with the conference and in return obtaining a lower rate. Cost and demand influences depend on the particular commodity. Generally speaking, conference rates are still positively correlated with the unit values of commodities.

The liner market's tendency toward fierce competition was once again shown by the rate wars which took place in the early 1980s on such major liner trade routes as the Transpacific, the North Atlantic and the Europe-Far East routes.

7.3 Surface Transport (Rail and Trucking)

Generally speaking, rail provides the cheapest means to transport bulk goods. The specific route and the volume of a particular shipment will greatly influence the cost. The type of container (box car, piggy-back or other) will also affect the nature of the cost advantage over other means (trucking). On busy short-haul routes, such as that between Montreal and Toronto, road may be preferred over rail for reasons of both cost and scheduling.

The following rate examples are based on a shipment of packaged office furniture, transported by container or piggy-back. The size of the truck/container varies according to the particular route, as does the applicable rate (Freight-all-kind or Furniture, office).

TABLE 9

SELECTED TRANSPORTATION COSTS, CANADIAN LOCATIONS, BY RAIL

Route	Distance	Price per hundred-weight ($cwt)	Weight range (pounds)	Dollar cost per km/mile
Halifax-Montréal	1352 km. 840 mi.	$4.06-$4.46	214,000-45,000	$0.8-$1.4 per km. $1.3-$2.2 per mi.
Montréal-Toronto	539 km. 335 mi.	$4.68-$6.82	20,000-45,000	$2.5-$3.9 per km. $4.1-$6.3 per mi.
Toronto-Winnipeg	1989 km. 1236 mi.	$6.47-$11.89	15,000-40,000	$0.9-$1.3 per km. $1.4-$2.1 per mi.
Calgary-Vancouver	1031 km. 641 mi.	$4.63-$5.53	30,000-40,000	$1.6-$1.8 per km. $2.6-$2.9 per mi.
Vancouver-Toronto	4360 km. 2710 mi.	$6.84-$10.13	24,000-40,000	$0.6 per km. $0.9-$1.0 per mi.

Source: CN Rail

Trucking freight rates are not regulated in Canada. Instead, there is a system of collective regulation. Trucking rates (tariffs) depend upon a host of factors and vary from province to province. The deregulation process will affect tariffs unevenly when fully implemented. One third of all Canadian for-hire trucking companies are located in Ontario, so it will be the province most affected by deregulation. Alberta will be the least, since it has few regulations on trucking.

While there are many attractive rates on inter-provincial traffic at present, the effects on deregulation are expected to reduce the shipping costs for manufacturers. There is expected to be greater change on International routes where the varients which determine tariffs are much greater than on inter-provincial ones. The international class rate structure is much higher than the domestic structure. For long-haul routes especially, less-than-truckload (ITl) business will be based more on volume, with discounts for higher levels of traffic.

On international routes, the tariff structure is such that there can be more than one legal rate. These may not reflect the actual obtainable rate. The 'paper' rate generally reflects the maximum a carrier will charge. Under normal circumstances, this rate will be reduced through the transport company's discount program on a particular route.

Tariff rates are expressed according to the class and volume of shipment and are usually quoted in terms of dollar cost per hundred weight ($Rate Cwt.). They are set by the regional tariff bureau which has jurisdiction over the area.

In Southern Ontario, where much of the Canadian manufacturing industry is located, the tariff rates are set by the Niagara Frontier Tariff bureau. Rates are also set by the Québec Tariff Bureau in Montreal. The Middle Atlantic Tariff Bureau in Washington, D.C. and the Southern Motor Carriers Conference in Atlanta, Georgia, set rates for traffic from Québec and the Maritimes to the U.S. Similarly for traffic out of Vancouver and the prairie provinces, rates are set by the Pacific Inland Tariff Bureau in Portland, Oregon and the Rocky Mountain Tariff Bureau in Denver, Colorado. To maximize the benefits of the deregulated environment in the United States, several large shipper agents have emerged, with a noticeable impact on the rate structure. Shipper agents have been able to offer rates as much as forty percent less than rates quoted by the bureau. There has also been an increase in private trucking to get around the published rates. A firm may use its own trucks to haul cargo to the border to interline with an American carrier. As well, many new carriers do not belong to bureaus and base their rates on cost, while others do so according to what the market may bear. Many such shippers-agent-cost-carriers use a cost-plus formula. They represent a growing number of firms and are receiving support on international traffic.

The following rate examples are based on a shipment of packaged office furniture, transported by a private transport company. The prices are based on a city-to-city rate, using a full truckload, and on an ongoing contract basis (Canadian destinations, truck size 45-48 feet).

These are estimates only and prices quoted may be subject to negotiation and discount by individual carriers.

TABLE 10

SELECTED TRANSPORTATION COSTS, CANADIAN LOCATIONS, BY TRUCK

Route	Distance	Cost of truck	Dollar cost per km/mile
Halifax-Montréal	1249 km. 775 mi.	$1800	$1.4 per km. $2.3 per mi.
St.John, N.B.-Montréal	940 km. 583 mi.	$1350	$1.4 per km. $2.3 per mi.
Rivière-du-Loup, Qué.-Montréal	452 km. 280 mi.	$750	$1.6 per km. $2.6 per mi.
Quebec City-Montréal	270 km. 168 mi.	$470	$1.7 per km. $2.8 per mi.
Montréal-Toronto	539 km. 335 mi.	$625	$1.2 per km. $1.9 per mi.
Toronto-Winnipeg	2099 km. 1303 mi.	$2600	$1.2 per km. $2.0 per mi.
Calgary-Edmonton	299 km. 186 mi.	$400	$1.3 per km. $2.2 per mi.
Regina-Winnipeg	571 km. 355 mi.	$800	$1.4 per km. $2.3 per mi.
Calgary-Vancouver	1057 km. 656 mi.	$1350	$1.3 per km. $2.1 per mi.
Vancouver-Toronto	4492 km. 2789 mi.	$3000	$0.6 per km. $1.1 per mi.
Toronto-Vancouver		$5000	$1.1 per km. $1.8 per mi.

Source: Private Carriers (January 1986).

Other key factors affecting rates include:

- the number of shipments per week, and the nature of the contract with a particular freight forwarder or trucking company.
- the cargo type, the load (less than truckload or full truck) and tonnage.
- transport type; container or piggy-back.
- the routing; whether a city to city rate or line-haul rate, where several stopovers are involved.
- the direction of the shipment. Demand and supply factors mean carriers will offer large discounts on one direction but not the other.

Rates to the American market may vary by as much as three hundred percent, depending on the particular route and volume. Cost estimates for destinations in regional American markets cannot be published at present because of the changing and fiercely competitive nature of the deregulated American environment.

Some selected cost ranges have been estimated for transport between certain Canadian cities. It should be noted that they are only indications of actual costs and are based on one particular shipment type. Costs are expressed in dollar cost per kilometer/mile, as well as price per hundred weight and truck cost.

APPENDIX I

Airport Name	Region
Abbotsford	Pac
Alma	Que
Arnprior/Renfrew	Ont
Bagotville	Que
Baie Comeau	Que
Baker Lake	Cen
Brandon Munic.	Cen
Calgary Inter.	Wes
Cambridge Bay	Wes
Campbell River	Pac
Carp	Ont
Cartierville	Que
Castlegar	Pac
Charlevois	Que
Charlot	Atl
Charlottetown	Atl
Chatham/Miramichi	Atl
Chesterfield Inlet	Cen
Chevery	Que
Churchill	Cen
Churchill Falls	Atl
Coral Harbour	Cen
Cranbrook	Pac
Dauphin	Cen
Dawson Creek	Wes
Deer Lake	Atl
Dryden Munic.	Cen
Earlton	Ont
Eastmain	Que
Edmonton Inter.	Wes
Emsdale	Ont
Eskimo Point	Cen
Eureka	Cen
Flin Flon	Cen
Forestville	Que
Fort Francis	Cen
Fort McMurray	Wes
Fort Nelson	Wes
Fort Resolution	Cen
Fort Rupert	Que
Fort St. John	Wes
Fort Simpson	Wes
Fort Smith	Wes
Fredericton	Atl
Frobisher Bay	Que
Gananoque	Ont
Gander Inter.	Atl
Gaspé	Que
Gillam	Cen
Gjoa Haven	Cen
Goose Bay	Atl
Gore Basy	Ont
Grande Prairie	Wes
Grise Fiord	Cen
Halifax Inter.	Atl
Hall Beach	Cen
Hamilton	Ont
Havre St-Pierre	Que
Hay River	Wes
Igloolik	Cen
Iles-de-la-Madeleine	Que
Inuvik	Wes
Kamloops	Pac
Kapuskasing	Ont
Kelowna	Pac
Kenora	Cen
Killaloe	Ont
Kuujjuaq	Que
La Macaza	Que
La Ronge	Cen
Lethbridge	Wes
London	Ont
Lourdes de Blanc Sablon	Que
Lynn Lake	Cen
Mirabel Inter.	Que
Moncton	Atl
Mont Joli	Que
Montreal Inter.	Que
Moosonee	Ont
Mould Bay	Cen
Muskoka	Ont
Natashquan	Que
Norman Wells	Wes
North Battleford	Cen
North Bay	Ont
Norway House	Cen
Oshawa	Ont
Ottawa Inter.	Ont
Peace River	Wes
Pearson Inter.	Ont
Pelly Bay	Cen
Pembroke	Ont
Penticton	Pac
Pitt Meadows	Pac
Port Hardy	Pac
Prince Albert	Cen
Prince George	Pac
Prince Rupert	Pac
Princeton	Pac
Québec	Que
Quesnel	Pac
Rankin Inlet	Cen
Red Deer	Wes
Red Lake	Cen
Regina	Cen
Repulse Bay	Cen
Resolute	Cen
Rimouski	Que
Rivière-du-Loup	Que
Rouyn	Que
St. Andrews	Cen
St. Anthony	Atl
St. Catharines	Ont
St. Hubert	Que
St. Jean	Que
Saint John	Atl
St. John's	Atl
St. Leonard	Atl
Sandspit	Pac
Sarnia	Ont
Saskatoon	Cen
Sault Ste. Marie	Ont
Schefferville	Que
Sept Iles	Que
Sherbrooke	Que
Smithers	Pac
Spence Bay	Cen
Springbank	Wes
Stephenville	Atl
Sudbury	Ont
Swift Current	Cen
Sydney	Atl
Terrace	Pac
The Pas	Cen
Thompson Munic.	Cen
Thunder Bay	Cen
Timmins	Ont
Tofino	Pac
Toronto Island	Ont
Val D'Or	Que
Vancouver Inter.	Pac
Victoria Inter.	Pac
Villeneuve	Wes
Wabush	Atl
Watson Lake	Wes
Wemindji	Que
Whale Cove	Cen
Whitehorse	Wes
Wiarton	Ont
Williams Lake	Pac
Windsor	Ont

Atl - Atlantic
Cen - Central
Ont - Ontario
Que - Quebec
Pac - Pacific
Wes - Western

Munic. - Municipal
Inter. - International

APPENDIX II

HARBOUR COMMISSIONS PORT MANAGERS

Mr. David S.H. Cree
General Manager
Windsor Harbour Commission
500 Riverside Drive West
Windsor, Ontario
N9A 5K6
519-258-5741

Mr. Ian Brown
General Manager
Toronto Harbour Commissioners
60 Harbour Street
Toronto, Ontario
M5J 1B7
416-863-2020

Capt. D. Brooks
Port Manager
Port Alberni Harbour Commission
2750 Harbour Road
P.O. Box 99
Port Alberni, B.C.
V9Y 7M6
604-723-5312

Ms. Donna Taylor
Port Manager
Oshawa Harbour Commission
1050 Farewell Street
Oshawa, Ontario
L1H 6N6
416-576-0400

Mr. George W. Colquhoun
Port Manager
North Fraser Harbour Commission
2020 Airport Road
Richmond, B.C.
V6B 1C6
604-273-1866

Mr. Preston R. Cook
Port Manager
Thunder Bay Harbour Commission
P.O. Box 2266
Thunder Bay, Ontario
P7B 5E8
807-344-3594

Mr. R.R. Hennessy
Port Director
Hamilton Harbour Commissioners
605 James Street North
Hamilton, Ontario
L8L 1K1
416-525-4330

Mr. Rick Pearce
Port Manager
Fraser River Harbour Commission
Suite 505
713 Columbia Street
New Westminster, B.C.
V3M 1B2
604-524-6655

Mr. Lloyd L. Bingham
Port Manager
Nanaimo Harbour Commission
104 Front Street
P.O. Box 131
Nanaimo, B.C.
V9R 5K4
604-753-4146

APPENDIX III

ST. LAWRENCE SEAWAY TARIFF OF TOLLS

Title

1. This tariff may be cited as the St. Lawrence Seaway Tariff of Tolls.

Interpretation

2. In this tariff

(a) "Authority" means The St. Lawrence Seaway Authority;

(b) "Bulk cargo" means such goods as are loose or in mass and generally must be shovelled, pumped, blown, scooped or forked in the handling and, without limiting the generality of the term or otherwise affecting its meaning, shall be deemed to include:
(i) cement, loose or in sacks;
(ii) coke and petroleum coke, loose or in sacks;
(iii) domestic package freight;
(iv) ores and minerals (crude, screened, sized or concentrated, but not otherwise processed) loose or in sacks, including alumina, bauxite, coal, gravel, phosphate rock, sand, stone and sulphur;
(vi) pig iron, scrap metals;
(vii) pulpwood, poles and logs, loose or bundled;
(viii) raw sugar, flour, loose or in sacks;
(ix) woodpulp, loose or in bales;

(c) "Cargo" means all goods aboard a vessel whether carried as revenue or non-revenue freight, or carried for the vessel owner, except: empty containers and the tare weight of loaded containers, all such containers having a capacity of 18 cubic meters (635.665 cubic feet) or more; ships' fuel, ballast or stores, or crew or passengers' personal effects, and intransit cargo that is carried both upbound and downbound in the course of the same voyage which shall be reported in the Seaway Transit Declaration Form but is deemed to be ballast and not subject to toll assessment;

(d) "Containerized cargo" means any general cargo shipped in an enclosed, permanent, reusable, nondisposable, weathertight shipping convenyance having a capacity of 28 cubic meters (635,665 cubic feet) or more and fitted with a minimum of one hinged door;

(e) "Corporation" means the Saint Lawrence Seaway Development Corporation;

(f) "Domestic package freight" means cargo, the shipment of which originates at one Canadian point and terminates at another Canadian point, or which originates at one United States point and terminates at another United States point, but shall not include any import or export cargo designated at the point of origin for transshipment by water at a point in Canada or in the United States;

(g) "Feed grains" means barley, corn, oats, flaxseed, rapeseed, soybeans and other oilseeds, grain screenings, and mill feed containing not more than 35 percent of ingredients other than grain or grain products;

(h) "Food grains" means buckwheat, dried beans, dried peas, rye and wheat;

(i) "General cargo" means all goods not included in the definitions under paragraphs (b), (g), (h), and (j);

(j) "Government aid cargo" means processed food products which have been donated by or the purchase of which has been financed on concessional terms by the Federal government of either the United States or Canada for the purposes of nutrition, economic development, emergency, or disaster relief programs;

(k) "Metric ton" means, unless otherwise stated, a metric unit of weight of 1,000 kilograms (2204.62 pounds);

(l) "Passenger" means any person being transported through the Seaway who has paid a fare for passage;

(m) "Pleasure craft" means a vessel, however propelled, that is used exclusively for pleasure and does not carry passengers;

(n) "St. Lawrence Seaway" includes all facilities and services authorized under the St. Lawrence Seaway Authority Act, Chapter 242, Revised Statutes of Canada, 1952, as amended, and under public Law 358, 83rd Congress, May 13, 1954, enacted by the Congress of the United States, as amended, and including the Welland Canal, which facilities are under the control and administration or immediate financial responsibility of either the Authority or the Corporation;

(o) "Seaway" means the St. Lawrence Seaway;

(p) "Tolls" means the total assessment levied against a vessel, its cargo and passengers for complete or partial transit of the Seaway covering a single trip in one direction;

(q) "Vessel" means every type of craft used as a means of transportation on water, except a vessel of, or employed by, the Authority or the Corporation.

Tolls

3. (1) The tolls shall be as set forth in the Schedule hereto, and the toll level reached in 1983 shall remain in effect thereafter until modified.

(2) The tolls under this tariff are due from the representatives of each vessel as soon as they are incurred, and upon demand of either the Authority or the Corporation, payment shall be made within fourteen days of the date of such demand.

(3) The tolls for the section between Montreal and Lake Ontario shall be paid 71 percent in Canadian dollars and 29 percent in United States dollars. Payments for transit through locks in Canada only shall be in Canadian dollars, and payments for transit through locks in the United States only shall be in United States dollars.

(4) The tolls for transit of the Welland Canal shall be paid in Canadian dollars and shall accrue to the Authority.

Security for Payment

4. A representative of each vessel shall provide the Authority or the Corporation with security, satisfactory to the Authority or the Corporation, for payment of tolls.

Description and Weight of Cargo

5. (1) A cord of pulpwood shall be deemed to weight 1,450 kilograms (3196.70 pounds).

(2) (a) 1,000 f.b.m. of sawn softwood lumber with less than 15 percent moisture content shall be deemed to weigh 770 kilograms (1697.56 pounds).
(b) 1,000 f.b.m. of sawn softwood lumber with 15 percent moisture content or over shall be deemed to weigh 950 kilograms (2094.39 pounds).
(c) 1,000 f.b.m. of sawn hardwood lumber with less than 15 percent moisture content shall be deemed to weigh 1.135 kilograms (2502.24 pounds).
(d) 1,000 f.b.m. of sawn hardwood lumber with 15 percent moisture content or over shall be deemed to weigh 1,405 kilograms (3097.49 pounds).

(3) The tonnage used in the assessment of tolls shall be calculated to the nearest 1,000 (2204.62 pounds).

Post-Clearance Date Operational Surcharges

6. If the Authority and the Corporation so determine, they may establish a clearance date for the transit of the Montreal-Lake Ontario section. Each vessel which does not comply with the conditions announced by the Authority and the Corporation in establishing the clearance date may be required to pay, in dollars, an operational surcharge as follows:

(a) Vessels reporting during the 24 hour period immediately following the clearance date: 20,000.00
(b) Vessels reporting more than 24 hours late, but less than 48 hours after the clearance date: 40,000.00
(c) Vessels reporting more than 48 hours late, but less than 72 hours after the clearance date: 60,000.00.
(d) Vessels reporting more than 72 hours late, but less than 96 hours after the clearance date: 80,000.00.

The operational surcharge assessed vessels already at a port, dock or wharf within the St.Lambert-Iroquois Lock segment of the Montreal-Lake Ontario section at the clearance date shall be $20,000 less than the amount otherwise applicable.

Each vessel which reports more than 96 hours after the clearance date may transit only if a prior written agreement authorizing such transit has been entered into among the owner or agent of the vessel and the Authority and the Corporation. Such agreement may provide for additional operational surcharges.

Assessed operational surcharges will be prorated on a per dock basis. Surcharges representing transit through United States locks will be for the account of the Corporation and payable in United States funds and surcharges representing transit through Canadian locks will be for the account of the Authority and will be payable in Canadian funds.

Schedule

	Tolls	
	Montreal to or from Lake Ontario	Lake Ontario to or from Lake Erie (Welland Canal)
	1986	1986*
1. For transit of the Seaway, a composite toll, comprising:		
(1) a charge in dollars per gross registered ton, according to national registry of the vessle, applicable whether the vessel is wholly or partially laden, or is in ballast. (All vessels shall have an option to calculate gross registered tonnage according to prescribed rules for measurement in either Canada or the United States:United States:	0.08	0.07
(2) a charge in dollars per metric ton of cargo as certified on ship's manifest or other document, as follows:		
- bulk cargo	0.85	0.31
- general cargo	2.06	0.50
- containerized cargo	0.85	0.31
- government aid cargo	0.52	0.31
- food grains 0.52	0.31	
- feed grains 0.52	0.31	
(3) a charge in dollars per passenger per lock:	1.00	1.00

(4) a charge in dollars per lock for complete or partial transit of the Welland Canal in either direction by cargo or passenger vessels, which may be shared by vessels in tandem:

(i) loaded: per lock	N/A	250.00
(ii) in ballast: per lock	N/A	187.50

2. For partial transit of the Seaway:

(1) between Montreal and Lake Ontario in either direction, 15 percent per lock of the applicable toll.

(2) between Lake Ontario and Lake Erie, in either direction, (Welland Canal), 13 percent per lock of the applicable toll.

(3) Minimum charge in dollars per vessel per lock transited for full or partial transit of the Seaway:

- pleasure craft	5.00	5.00
- other vessels	10.00	10.00

* In February 1986, hearings will be held which may result in a 15 percent increase in tolls on the Welland Canal.

COMMUNICATIONS

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COMMUNICATIONS

The Canadian communications system, consisting of postal services, couriers, telephone and telegraph communications, is one of the finest in the world. Canada is at the forefront in voice, text and data communications facilities, with a sophisticated infrastructure for high speed, high quality digital data transmission based on international standards. (For example, Northern Telecom sold more digital switches than any other firm in the world and the Mitel SX-2000 is considered by most to be the state-of-the-art in digital PABX's). Saskatchewan has an extensive installation of cable and optical fibre for digital communications, the most advanced system in the world. Canada leads the world in applied videotex technology (i.e. Telidon, Teleguide and Grassroots systems) and, via BellNet, provides a unique centralized database service with on-call, on-line access to major Canadian and U.S. databanks. The ensuing section examines each of the communications sectors in more detail.

1. POSTAL SERVICE

The postal service in Canada (Canada Post Corporation) delivers more than 6 billion pieces of mail a year. Services are available throughout Canada, in 8,200 branches and neighbourhood post offices.

Canada Post offers several methods of mailing an item.

First Class: Delivery normally takes one to three days in Canada. Cost in Canada: 34¢ for the first 30 gm. (1 ounce); 51¢ for 50 gm. (1 3/4 ounces); 39¢ for 30 gm. in non-standard envelopes or for non-coded mail. To the U.S.: 39¢ for first 30 gm.; 56¢ for 50 gm. Overseas: 68¢ for first 20 gm. (0.7 ounce); $1.05 for 50 gm. Discounts, based on quantity and frequency of use, are available for domestic mail.

Special Delivery: Delivery normally takes one to two days, (twelve hours per day, seven days per week). Cost in Canada: $1.25 plus first class rate. Outside Canada: $1.25 plus postage.

Electronic Mail:

(i) Telepost: Hard copy service with delivery the next day in North America. Same day delivery in Canada, if combined with special delivery. Items can be sent by telephoning a CNCP public message service centre; over-the-counter at any CNCP office; or by direct input via telex, Electronic Office Services, Word Processing Mail or magnetic tape. Cost in Canada: $4.25 for up to 50 words (each additional 25 words or less are 75¢). Special delivery adds $1.65. From Canada to the U.S. costs are $5.50 for up to 50 words, plus $1.50 for each additional 25 words or less.

(ii) Intelpost: Facsimile transmission. Minimum size 12.6 cm X 12.6 cm. (5 x 5 inches), maximum size 21.5 cm X 35.5 cm. (8.5 x 14 inches). Counter pick-up available by addressee in 30 minutes within world-wide network. Same day delivery when combined with special delivery. Cost in Canada: $4.25 per page plus $1.25 for special delivery. Outside Canada: $5.30 to $12.72 per page (includes special delivery).

(iii) Envoypost: Available to subscribers of Telecom Canada's Envoy 100. (See below) Messages can be sent to any address in Canada, same day delivery in major cities. Cost: $1.10 (up to 4 pages).

Registered Mail: Provides legal proof of mailings. For a small fee, automatic acknowledgement of receipt is provided. Letter and parcels up to 30 kg. (66 lb.) may be registered. Costs in Canada: $2.46 plus first class rate. Proof of delivery costs 56¢ extra. Insurance is available. Outside Canada: $2.46 plus international postage rate.

Certified Mail: Proof of delivery, signed, is returned to sender. Costs: $1.12 plus first class rate. Available in Canada only.

Parcel Service:

(i) First class: Shipments travel by fastest available means. Can be combined with special delivery and can be registered, certified, given proof of delivery and insured. Weight maximum 30 kg. (6.6 lb.). There are size limits. Example: For 2 kg. (4.4 lb.) lst class parcel with special delivery - Quebec City to Toronto - $5.71; Vancouver to Fredericton - $10.23; Montreal to Edmonton - $8.45.

(ii) Parcel post: Shipment is by land transport. Can be certified and has proof of delivery option. Weight limit of 30 kg. (66 lb.) and size restrictions apply.

Admail: Advertising by mail. Business can choose recipients, geographically and/or demographically. 100 percent market coverage available.

(i) Addressed: Coverage is from compiled lists. Canada Post is able to advise on where such lists are available. Material can be mailed at first class or third class bulk rate.

(ii) Unaddressed: Using maps, mail can be delivered precisely to indicated market. Cost ranges upward from 5.8¢ per item.

2. TELEPHONE AND TELECOMMUNICATIONS SYSTEM

Canada has a vast, sophisticated telephone and telecommunications network consisting of about 120 separate systems, combining to link individuals and business throughout the country. There are 18 major telephone and telecommunications carriers serving most telephones in Canada. (See Table 1).

In addition, there are more than 100 other smaller, mostly rural, companies connecting to the network. CNCP Telecommunications, Teleglobe Canada and Telesat Canada operate microwave and satellite communication systems. Through Telecom Canada, the diverse systems are united into a common network.

Regulation of the system is carried out by the Canadian Radio-Television and Communications Commission (in the case of 6 federally-regulated companies), by provincial governments, and in one case, by a municipal government.

TABLE I

MAJOR TELEPHONE & TELECOMMUNICATIONS CARRIERS IN CANADA

Company	Affiliation	Ownership	Type of Corporation	Principal Territory
* Bell Canada	Telecom Canada	Private	BCE-owned	Ont., Que. & eastern portion of NWT
* British Columbia Telephone	Telecom Canada	Private	Investor-owned	British Columbia
* CNCP Telecommunications		Priv/Pub	Crown Corp/Inv.	Canada
Teleglobe Canada	Telecom Canada	Public	Crown Corporation	International/Overseas
* Telesat Canada	Telecom Canada	Priv/Pub	Investor-owned	Canada
* NorthwesTel		Public	CNR-owned	Western portion of NWT, Yukon and Northern B.C.
* Terra Nova Telecommunications		Public	CNR-owned	Newfoundland
Alberta Government Telephones	Telecom Canada	Public	Crown Corporation	Alberta
Saskatchewan Telecommunications	Telecom Canada	Public	Crown Corporation	Saskatchewan
Manitoba Telephone System	Telecom Canada	Public	Crown Corporation	Manitoba
Maritime Telegraph and Telephone	Telecom Canada	Private	Investor-owned	Nova Scotia
New Brunswick Telephone	Telecom Canada	Private	Investor-owned	New Brunswick
Québec-Téléphone		Private	Investor-owned	Québec
Newfoundland Telephone	Telecom Canada	Private	Investor-owned	Newfoundland
Télébec		Private	Investor-owned	Québec
Island Telephone	Telecom Canada	Private	Investor-owned	Prince Edward Island
Northern Telephone		Private	Investor-owned	Ontario
Edmonton Telephones		Public	Municipally-owned	Edmonton

Telecom Canada - Previously known as TCTS (TransCanada Telephone System)
BCE - Bell Canada Enterprises
Priv./Pub. - Private/Public
Crown Corp/Inv - Crown Corporation/Investor-owned
* Regulated by the CRTC.

Source: CRTC, Annual Report 1984/85.

TABLE 2

SELECTED TELEPHONE SERVICE RATES

	Halifax	Montreal	Toronto	Winnipeg	Edmonton	Vancouver
Monthly Rate Business Basic Service (one line) (one phone)	$37.50 + dep. & install.	$40.60 + dep. & install.	$43.75 + dep. & install.	$20.00 + dep. & install.	$29.75 + dep. & install.	$47.60 + dep. & install.
Long Distance*	to	to	to	to	to	to
Halifax		2.55 5.50	2.88 6.20	3.21 7.20	3.10 7.14	3.30 7.50
Montreal	2.61 6.36		3.15 6.50	3.00 6.50	3.15 7.14	3.30 7.50
Toronto	2.85 6.60	2.01 6.50		3.00 6.50	3.15 7.14	3.30 7.50
Winnipeg	2.94 6.69	3.00 6.50	3.00 6.50		2.73 5.90	3.00 6.50
Edmonton	3.12 6.87	3.30 7.50	3.30 7.50	2.88 6.20		2.52 2.94
Vancouver	3.12 6.87	3.30 7.50	3.00 6.50	3.00 6.50	2.67 4.79	

* 09:00 to 17:00; Monday to Friday; 3 minutes; upper: station-to-station, customer-dialed; lower: person-to-person, operator service. (Jan. 1986)

The latest technology is in use by the carriers, including 6 commercial satellites, microwave transmission facilities and fibre optics. Customers can lease time on commercial satellite channels, providing audio, video and data links between locations.

New cellular mobile telephone systems recently introduced, are now bringing regular telephone service to practically any location.

2.1 Telegraph

Telegraph and Telex services are provided by CNCP. Rates for telegrams sent and delivered inside Canada are $4.85 for 15 words plus 20¢ for each additional word. CNCP also has a "Telepost" service. A message can be telephoned to CNCP, who relays it to the destination post office, where the message is put into the regular mail service for delivery. Cost of Telepost is $4.25 for the first 50 words, plus 75¢ for each additional 25 words or less.

2.2 Telex

Telex services are available from CNCP. Rental charges for a basic keyboard terminal are $101.00 monthly. For a machine with a tape feed and automatic sending device, monthly rental is $164.00. Telex rates vary according to length of message and distance. (See Table 3)

TABLE 3

TELEX RATES* BETWEEN SELECTED POINTS

And Between	Vancouver	Edmonton	Winnipeg	Toronto	Montreal
	$	$	$	$	$
Halifax	1.23	1.23	1.23	.82	.51
Montreal	1.23	1.23	1.03	.72	
Toronto	1.23	1.23	.82		
Winnipeg	.82	.72			
Edmonton	.62				

* rates are in Canadian dollars per minute.

Source: CNCP Telecommunications. (January 1986)

International rates, with Montreal as base, are shown in Table 4.

TABLE 4

INTERNATIONAL TELEX RATES

From: Montreal

To	Telex Rate*
Atlanta	1.07
Boston	.53
Chicago	.75
Dallas	1.28
Los Angeles	1.28
New York	.53
Dusseldorf	22.50
London	22.50
Milan	22.50
Paris	22.50
Tokyo	30.00

* Canadian dollars per minute.

Source: CNCP Telecommunications. (January 1986.)

2.3 Envoy 100 - Bell Canada

Bell Canada's Envoy electronic messaging service is a telex competitor, and is presently replacing their TWX system. Envoy requires a terminal capable of sending ASCII characters and a modem. Users can access anyone on Bell's Datapac network. Envoy is also capable of addressing the telex network. Costs are $25.00 for initial hook-up and $5.00 per month. Messages sent and destined within Canada cost 30¢ per thousand characters, regardless of distance.

3. RADIO

Radio communications devices are in widespread use by Canadians, ranging from simple paging apparatus to mobile radios. While parts of the radio broadcast band spectrum are reserved for police, ambulances and fire departments, others are available for use by the public and for business and personal use. All transmitters must be licensed by the Department of Communications.

4. COURIER SERVICES

Courier services are available from the Canada Post Corporation and a number of companies located in the major centres. Rates for Priority Post Courier between selected locations in Canada are shown in Table 5. Courier services are generally used when delivery time is important, or when valuable goods are being sent. In addition to the rates shown, volume discounts are generally available, which can reduce the costs by up to 50 percent.

TABLE 5

RATES* FOR PRIORITY POST COURIER SERVICE

BETWEEN SELECTED LOCATIONS IN CANADA

Between	Vancouver $	Edmonton $	Winnipeg $	Toronto $	Montreal $
Halifax	12.83	12.03	11.24	10.60	8.48
Montreal	12.03	11.24	10.60	5.10**	
Toronto	12.83	12.03	10.60		
Winnipeg	9.01	7.95			
Edmonton	8.48				

* For parcels up to and including 1 kg. (2.2 lbs.)

** Up to 3 kg. (6.6 lbs.)

Source: Canada Post Corporation.

5. MEDIA

5.1 Television

Canada is easily accessed by 216 originating and 1247 rebroadcasting television stations. The country is well served in both official languages by national television networks (CBC and CTV), several regional networks (Global, TVA, OECA and Radio-Quebec) and many independent television stations. There is one TV station in Toronto, with broadcasts aimed at ethnic audiences. Reception, including in the far north, is obtained via individual antennae, community antennae, satellite relay or cable television.

5.2 Radio

There are two national radio networks. The CBC, which provides programming in both English and French, and CKO, which provides a national English-language news service. In total, there are 327 originating and 501 rebroadcasting stations in Canada, seven of which are licensed to broadcast primarily in languages other than English and French. Most radio stations have some limited ethnic programming, mostly on the weekend during non-prime listening hours.

5.3 Print Media

Canada has one national newspaper, the Globe and Mail. In addition, other papers, such as the Toronto Star, publish regional versions. All large centres have at least one daily newspaper. In Montreal, there are major dailies in both official languages. Most medium and smaller centres have weekly newspapers. In the major centres, newspapers serving ethnic communities are published on a weekly, bi-weekly or monthly basis. In many instances, these ethnic publications have national distribution.

Canadians also publish nationally-distributed periodicals and trade magazines directed at specific population strata, occupations, businesses or special interest groups.

ENVIRONMENT

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THE ENVIRONMENT

1. ENVIRONMENTAL PRIORITY

Concern with pollution and other environmental matters is a high priority in Canada. Regulatory material, at all levels of government, exists to protect Canadian wildlife, flora, air, water and soil quality. Acid rain is of sufficient concern that a Canada-U.S. fact-finding commission, with William Davis, former Premier of Ontario and Drew Lewis, a former U.S. Secretary of Transportation, was formed. The Davis-Lewis report, issued in January 1986, called for a 5-year, $5 billion program to develop new, less expensive methods of reducing acid rain pollution, and acknowledged that acid rain was a serious transborder environmental problem. The following section outlines the existing legislation and services with regard to environmental issues.

2. FEDERAL LEGISLATION

Environment Canada's mandate is derived from the revised Government Organization Act, 1979. This Act establishes regulations and laws related to:

(a) national parks, national historic parks and sites, and heritage canals;

(b) preservation and enhancement of the quality of the natural environment, including water, air and soil quality;

(c) renewable resources including forest resources, migratory birds and other non-domestic flora and fauna;

(d) water;

(e) meteorology; and,

(f) other federal matters relating to the natural environment.

More specific powers and duties are defined by the Canada Water Act, Canada Wildlife Act, Clean Air Act, Environmental Contaminants Act, Forestry Development and Research Act, Game Export Act, Historic Sites and Monuments Act, International Power Improvements Act, Migratory Birds Convention Act, National Parks Act, Ocean Dumping Control Act and the Weather Modification Information Act.

Before establishing a business which produces hazardous emissions or waste, the investor should consult with the Environment Department. The Department also has the responsibility to administer pollution control provisions of the Fisheries Act. The operation of the Federal Environmental Assessment Review Office is assigned to the Minister of the Environment, as is federal coordination in response to environmental emergencies.

3. SHARED JURISDICTION WITH PROVINCES

Every province in Canada has extensive environmental protection legislation and standards, ranging from acid rain emissions to forest conservation. The Constitution Act, 1981 reflects the clear jurisdiction of the provinces over land, forests and natural resources within their boundaries. The Federal Government has jurisdiction over certain other areas such as Indian lands, the Territories, national and historic parks and migratory bird sanctuaries. The nature of environmental issues is such that, in many areas, federal and provincial governments share jurisdictional responsibility. Consultation with the provinces prior to establishing a business which may produce environmental hazards is highly recommended.

4. ENVIRONMENTAL CONTROLS

The environmental activities of both the federal and provincial governments are concerned with the protection and conservation of air, water, soils, biota, and gene pools. To maintain a healthy and productive biosphere, all levels of government protect the natural environment from destabilizing forces. In this connection, both the federal and provincial governments have established programs in such areas as water and forest management and pest control.

Both levels of government are also involved in providing advice and information about changes in the natural environment and about threats to natural phenomena. They complement each other in the provision of services such as air monitoring, weather forecasting, flood and sea ice predictions, and climate research.

Preserving the quality of the natural environment also involves dealing with wastes that are a product of modern industry. The aim is to promote the safe handling of industrial wastes that can cause pollution and illness, to encourage recycling in order to conserve energy and minerals, and to assist in keeping the country free of unnecessary waste.

Energy conservation is an integral part of the environmental perspective. It is recognized that it is essential to maintain renewable energy resources for Canada to continue to be productive. Further, there is considerable attention directed toward alternate sources of energy, including thermal, biomass, water, sun and wind.

Many of the activities directed at protection of the environment since 1970 focussed on checking further pollution of water, air and lands, and on beginning the process of repairing ecological damage. There is now an array of legislation and regulations designed to protect air, water, lands, and endangered species from pollution and harmful activities. Progress has been made on the restoration of the Great Lakes through Canada/U.S. agreements, and the quality of air, water and lands around industrialized areas of the country is improving. Increased investment in municipal sewage treatment facilities has resulted in visible improvements in the water quality of many lakes and rivers. Air pollution controls have produced cleaner air in most major cities in Canada. Glass, paper and mineral waste recycling has resulted in conservation of energy, and both non-renewable and renewable resources. Emission limits for atmospheric contaminants have been legislated, and chemicals hazardous to human health and to wildlife have been banned or controlled.

5. SERVICES AND PROGRAMS

Environment Canada's programs fall into four inter-related fields: atmospheric services, environmental conservation, environmental quality, and natural and cultural heritage. In each of these areas, there are specific policies, programs and activities.

5.1 The Atmospheric Environment Service (AES)

The AES has primary responsibility for providing weather, climate, sea-state, ice and air quality information, and research services for the safety of Canadians, security of their property, and for the maintenance and enhancement of environmental quality.

The AES provides past data and forecast conditions of the atmosphere, status of sea-ice and sea-state, conducts research into acid rain, atmospheric carbon dioxide, and other air pollutants and toxic chemicals. The AES also encourages the science and practice of meteorology in Canada and promotes Canada's atmospheric interests internationally.

Contact: Atmospheric Environment Service, Ottawa, Ontario, K1A 0H3.

5.2 Environmental Conservation Service (ECS)

The ECS has responsibility for policies and programs related to inland waters, wildlife and lands. The ECS works to ensure long-run sustainability and quality of the environment through planning and implementation of water quality and water resource development, migratory birds conservation and protection, wildlife research and management, as well as management and operation of a national land data bank. Based on the objective to conserve and enhance Canada's water, lands, forests and wildlife and their related ecosystems, and to promote their future wise use, the ECS has established a renewable resources conservation policy.

Contact: Environmental Conservation Service, Ottawa, Ontario, K1A 0E7.

5.3 The Environmental Protection Service (EPS)

The EPS is responsible for formulating and undertaking action to cope with threats to or adverse impacts on environmental quality. The EPS often works in cooperation with other federal departments, provincial governments and environmental organizations. The EPS is also responsible for the management of major priority issues such as toxic substances and acid rain. The EPS seeks to ensure that all parties in the government and private sector are aware of, and fulfill their responsibilities for protecting and enhancing the quality of the environment.

Contact: Environmental Protection Service, Ottawa, Ontario, K1A 1C8.

5.4 Parks Canada

Parks Canada is responsible for the protection and use of Canada's natural and cultural heritage. Parks Canada manages the 31 national parks, the national historic sites and monuments, and heritage waterways. Parks Canada contributes significantly to Canada's tourist industry while conserving Canada's natural, cultural and historic heritage. In 1984, Parks Canada welcomed over 27 million visitors to the National Parks and Historic Parks and Sites.

Contact: Parks Canada, Ottawa, Ontario, K1A 1G2.

5.5 The Canadian Forestry Service (CFS)

The CFS, recently brought under the authority of the Ministry of State for Forestry and Agriculture, has responsibility for Canada's forest resources. The Service is concerned with forest management and conservation principles; prevention and protection from fire, insects and diseases; and forecasting supply and demand for timber, including forest biomass for energy production. The CFS is also involved in research activities in such areas as acid rain, toxic chemicals and water management. The CFS continues to coordinate its efforts with the provinces and industry through existing consultative and advisory bodies.

Contact: Canadian Forestry Service, Sir John Carling Bldg., 930 Carling Avenue,
Ottawa, Ontario, K1A 0C5

6. ENVIRONMENTAL PRIORITIES

6.1 Toxic Substances

Under the toxic chemicals management program, the federal government conducts research on chemicals which could threaten environmental quality and analyzes the life cycle of chemicals to predict environmental entry points of chemicals. Under this program, officials test, monitor, register, and where necessary, develop guidelines and regulations which are consistently enforced. Both levels of government work towards a reduction in the amount of toxic waste by advocating the adoption of more conserving lifestyles, resource renewability, recycling and detoxification.

Past practices have allowed some toxic substances to escape into the environment, while others, stored with a minimum of safety, threaten to become a problem. Presently, a major priority is water quality in the Great Lakes and Niagara River, a matter being dealt with by the International Joint Council. Pesticides and herbicides are recognized as posing potential hazards to the Canadian environment. Actions have been initiated to improve the evaluation of new pesticides and herbicides, as well as a re-evaluation of those presently in use. Further, the Federal Government oversees the management of hazardous waste deposit sites and is working towards minimizing the number of future sites by encouraging and facilitating waste recycling. In fact, the National Recycling Council has recently been established to promote recycling opportunities.

The Province of Ontario has recently enacted much tougher hazardous waste disposal regulations backed by tighter surveillance, to ensure that irresponsible industries, waste haulers and dumpsite operators do not escape detection. It is likely that stiffer fines for waste disposal offences will be enacted in the near future, ranging up to $50,000 for a single offence.

6.2 Acid Rain

Acid rain is a serious environmental problem caused by emissions of sulphur dioxide and nitrogen oxide, both in Canada (mainly Ontario) and in the industrial U.S. midwest and northeast. It affects lakes and streams, buildings and structures, forests, agriculture and human health. The Federal Government is planning reductions in atmospheric emission levels. Specifically, the stated objective is to reduce wet sulphate deposition in vulnerable areas to less than 20 kilograms per hectare (17.5 lbs. per acre) per year. To this end, the Federal Long Range Transport of Air Pollutants Program is proceeding on four fronts:

i) to design and implement, in cooperation with the provinces, Canadian abatement programs;

ii) to press the U.S. to implement programs compatible with Canada's;

iii) to continually update the scientific data base on all aspects of the acid rain problem; and,

iv) to inform citizens in both countries of the acid rain problem.

In March 1984, federal and provincial environment Ministers agreed to reduce sulphur dioxide emissions from Manitoba east, to 2.3 million tonnes (2.5 million tons), or half of the allowable 1980 level, by 1994. The Ministers also agreed that the federal government would take the lead on ensuring the implementation of the necessary emission reductions from smelters and that the provinces would take the lead in the monitoring of emissions from utilities. The federal and provincial governments are continuing to press the U.S. for emission reduction standards. In June 1985, the Premiers of eastern Canada struck a new deal with governors in the north-eastern U.S. to fight acid rain and to reduce sulphur dioxide emissions by 32 percent by 1993. This is the first such agreement reached by the countries in this area.

6.3 Water Management

In the past, the availability of water in Canada far exceeded requirements, and water was at hand at minimal cost to users. Currently, there is a growing imbalance between water supply and demand, particularly on the Prairies, and inadequate water quality in some parts of the country. The federal and provincial governments are considering major diversions between river basins and ecological zones and water allocations among various users and political jurisdictions. The governments are very concerned about contaminants, ranging from toxic chemicals to agricultural runoff entering Canada's water system, and have invested significant funds in research and water purification systems.

Contact:
Inland Waters Directorate, Place Vincent Massey,

351 St. Joseph Blvd.,Hull, Quebec, K1A 0E7.

6.4 Protection of Canada's Natural Heritage

Canada is blessed with some of the most beautiful, unique and diversified natural features and ecosystems in the world. Since 1900, abundant natural areas have been set aside for the benefit and enjoyment of subsequent generations. The present generation has inherited this legacy as the National Parks system. These natural areas are visited annually by millions of Canadians and foreign tourists and have become a significant component of the tourist industry. These areas are protected from environmental hazards through the management of Parks Canada. Wetlands, which are vital to the maintenance of wildlife populations and water tables, are given special attention and protection to ensure the conservation of this important resource.

6.5 The North

The environmental uniqueness, wildlife, beauty and ecological sensitivity of the area north of 60°, with its harsh climate and geography and increased industrial activity, make Canada's north a potential environmental problem area. The federal government, to ensure that the north remains a territory free of pollution and other environmental hazards, and one that preserves its native culture and landmarks, has set out the following program:

i) establishment of new national parks;

ii) expansion of wildlife areas and migratory birds sanctuaries;

iii) development of historic parks and sites with particular emphasis on native culture;

iv) improved weather services for the safety of Arctic aviation;

v) leadership in the management of the larger interjurisdictional Northern river systems;

vi) improved environmental assessment of major developments;

vii) maintenance of wildlife species; and,

viii) control over Arctic shipping and marine oil spills.

R&D AND TECHNOLOGICAL INFRASTRUCTURE

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R&D AND TECHNOLOGICAL INFRASTRUCTURE

1. CANADIAN TECHNOLOGICAL DEVELOPMENT

An important factor in investment decisions in the 1980's is the R&D and technological infrastructure of host countries. Industrialized countries are concentrating their production and trade in sectors dominated by innovation from organized research, development and design. Greater reliance on technological change and innovation for growth means that trade is increasingly comprised of the transfer of knowledge and technical skills. The search for this type of talent has prompted a large number of firms to establish closer links to universities. Compressed technological cycles have convinced firms of the merits of joint ventures in R&D and production. The following section outlines the technological infrastructure Canada offers to potential investors.

1.1 The Tradition

Canadians have always been on the leading edge of scientific and technological innovation. In many ways, this is a product of the Canadian environment - telescoping distances, harvesting the country's rich resources, capturing the power inherent in its swiftly moving rivers and large lakes. Canada was among the first nations to develop powered flight; today Canadian technology is aboard the space shuttles, in the form of the Canadarm, the robot arm used to manipulate equipment in space. Canadians developed insulin, the heart pacemaker and the cobalt bomb, medical advances which save millions of lives; today Canadians contribute to advanced research in biotechnology. Canadians were and are still in the vanguard of the development of hydro-electric power generation (witness the James Bay development) but have not let the abundance of natural water resources slow the development of alternate power sources. The Candu nuclear reactor, in wide use in Canada and other parts of the world, has an enviable performance and safety record. Canadians are developing power systems sourced by the sun, the wind and the tides.

Canadians developed Durum wheat, which is renowned for its yield and disease resistance. New agricultural and other food products are continuously supplied to the world via Canadian research: products such as new wheat varieties, Canola, and Holstein genetics. Canadians lead the world in cold weather oil production and recovery. The tar sands, straddling the Alberta-Saskatchewan border, contain almost as much oil as the Middle East. Canadians have developed methods of extracting tar sands oil and have brought some areas into production. The telephone was a Canadian invention; Canada was the third nation in the world to build and design its own satellite and today Canadian communications satellites are among the most reliable and consistent in orbit. Canada is spanned from coast to coast by microwave networks, and research and production is well underway into the establishment of fibre-optic communication systems which can move many times more data than conventional wired systems, a requirement of significant impact in these days of high speed computer-based communications.

1.2 Advanced Technologies in the 1980's

The technological revolution of the 1970's produced considerable scientific achievements in Canadian industry. A pioneer in satellites, fibre optics and interactive videotex and teletext systems, Canada is a world leader in communications technology. A complex communications gridwork links Canadian telephones, not only to telephones throughout the developed world, but also to a wide array of Canadian and American radio, television, and computer facilities. The Canadian business community has been quick to take advantage of the resulting opportunities. The electronic office is routine in most large firms, where word processors and microcomputers boost productivity. When connected to their counterparts throughout the country, these machines provide virtually instant transmission of business documents. Teleconferencing via multi-party telephone links is a common way to speed corporate decision-making and cut costs.

Canadian industry has also made great progress in commercializing laser technologies. For example, Lumonics Inc. of Kanata, Ontario, specializes in gas and solid state lasers with particular emphasis on laser coding products, and is considered to be in third place in world-wide sales. In the area of software, approximately 1,000 firms are suppliers, many producing innovative customized packages. The Cognos Corp. of Ottawa, Ontario, is a recognized leader in the production of custom software for Hewlett Packard computers.

Canadian industry has also been quick to apply new industrial materials such as composite plastics. The De Havilland Dash-8 commuter plane employs the nighest percentage (approximately 10 percent) of exterior composite plastic structure of any civil aircraft.

In robotics, the experience gained by Spar Aerospace in manufacturing the robot manipulator arm for the space shuttle, is now being applied to developing robots for the mining industry.

1.2.1 Universities at the Cutting Edge

Canadian universities work in close cooperation with industry to ensure that basic research on advanced technologies is performed and diffused. The University of Waterloo (U. of W.) is one of the top computer science centers in North America, and is at the leading edge of high technology research, working in close cooperation with business and industry to develop new products and processes. One of its major strengths lies in the development of customized software packages in such diverse fields as advanced, three-dimensional film-making software, fourth generation software (software that can be used without a knowledge of programming languages) and a database version of the Oxford English Dictionary. Other U. of .W. research projects include roving robots that can mine minerals or cut down trees, finding new ways to diagnose blood disorders, designing microchips to adapt IBM's P.C.'s to educational uses, and turning waste wood products into edible protein.

U. of W. has developed its own industrial area on campus, known as Research Technology Park, which encourages companies to establish next to this major university research centre. Over the last few years, U.of.W. has spawned some 50 high tech companies. Just this year, Hewlett Packard moved its research and development facility from Toronto to U. of W.'s Research Technology Park.

In 1984, IBM gave U. of W. $5 million in new equipment and will invest $15 million more, as part of an ongoing program. In exchange, U.of.W. will do research to adapt IBM's personal computers to educational uses. In late 1984, Digital Equipment announced a donation of $25 million in equipment over the next few years. In return, U. of W. will do research in the areas of VLSI (very large scale integration) microchips, computer-aided learning, graphics, videotex, expert systems and other artificial intelligence applications, office automation, software engineering, networking and computer graphics.

In Alberta, the University of Calgary (U. of C.) does almost $35 million of externally-funded research a year. The major component of the R&D conducted by U. of C. relates to the energy industry. In late 1984, U. of C. and Control Data of Canada Ltd. of Mississauga, Ontario entered into a 10-year agreement which saw the installation of a supercomputer (one of only three in Canada; the other two are owned by the federal government) at the U. of C. This places the university at the leading edge of supercomputer technology. Approximately 51 percent of the supercomputer's time will be dedicated for use by the Universities of Calgary, Alberta and Lethbridge. The remaining 49 percent of machine time will be utilized by industry. This important installation will allow researchers to undertake projects in such areas as seismic analysis and mathematical simulation as well as in other areas involving extensive numerical simulation.

In Nova Scotia, the Technical University of Nova Scotia (TUNS) is the nation's clearinghouse or collegium for technology relating to computer-aided design and computer-aided manufacturing (CAD/CAM). The collegium is comprised of more than 90 representatives from industry, government, universities, and research and development centres across Canada. In addition to a full range of CAD/CAM and engineering software, TUNS offers expertise in computer graphics, mapping, finite analysis, database management, software development and a wide range of engineering fields including: civil, mechanical, electrical, agricultural and industrial engineering.

1.3 Policy

Government policy with respect to research, development and technology includes:

1) Stimulation of research and development: spending should increase from its present level of 1.3 percent to 2.5 percent of the gross national product.

2) A commitment to the increased application and assimilation of foreign transferred technology. One important aspect of this policy is the creation of Investment Canada, which actively promotes technology-bearing investment. Another manifestation of the policy is

the creation of a technology transfer group in the Department of External Affairs. As well, that Department is seriously considering the allocation of additional resources for an increased number of post-based science counsellors, to report on foreign technology. On another front, the National Research Council is continuing and enhancing its involvement in technology transfer programs.

3) Enhanced diffusion of technology to industry: This policy goal is supported by the creation by the Natural Sciences and Engineering Research Council (NSERC) of the Canadian Microelectronics Corp. (CMC), a non-profit corporation, to manage the multi-university computerized network for the design and testing of VLSI circuits. A coordination centre at Queen's University verifies the designs and forwards them to Northern Telecom for fabrication. The Department of Regional Industrial Expansion has established a complementary network to encourage regional capabilities in the application of microelectronics to industrial processes and products. Both the CMC and DRIE network have as their purpose, the active transfer of technology, or knowledge, to industry from the universities, or from government, or between private companies.

   Effective mechanisms for technology diffusion are: joint ventures between companies with abilities to manufacture and design products or processes; and licensing of technology or products to domestic manufacturers. Both are relatively quick and involve the products of R&D without most of the cost.

1.4 Federal Support for Technological Development

The Canadian government provides support for technological development through a variety of mechanisms, including tax incentives, grants, loans, contracts for goods and services, infrastructure support, and skills training related to high technology industries. Canada offers the most generous R&D tax treatment of of all OECD countries, second only to Singapore. The budget introduced in May 1985 proposed further incentives for R&D expenditures.

1.4.1. Tax Incentives

The Canadian Income Tax Act permits taxpayers to deduct all current and capital expenditures for R&D in the year which they were incurred. At the same time, it provides major tax incentives for industrial R&D through the Investment Tax Credit, Special Recovery Tax Credit, and Limited Partnerships.

The Investment Tax Credit

Expenditures on scientific research are eligible for the Investment Tax Credit. This credit is deductible from federal taxes otherwise payable. The basic credit is 20 percent of the taxpayer's expenditure on R&D, except for expenditures made in Canada's Atlantic Provinces and the Gaspé region of Quebec, where it is 30 percent.

Also, current R&D expenditures made by Canadian controlled private corporations, which qualify, in the year in which the expenditure is made, for the small business deduction, are eligible for a deduction of 35 percent. This 35 percent tax credit was made fully refundable on May 23, 1985. Since the credit applies on the first $2 million of R&D performed, the credit could be worth a maximum of $700,000 each year. The refund of unused credits will provide the greatest benefit to small start-up R&D firms who, initially, are often in a non-taxpaying position, and thus would not be able to use the credit immediately as a tax offset.

The definition of expenditures qualifying for R&D tax incentives covers expenditures, "all or substantially all" of which, are attributable to R&D. Current expenditures that are "directly attributable" to R&D also qualifies for the incentives. This will be of particular benefit to small businesses where the owner-manager is often involved in the R&D process. The present rule is that expenditures must be wholly attributable to R&D.

Special Recovery Investment Tax Credit

Over the next three years, a portion of the Investment Tax Credit earned on investments eligible for tax credits will be refunded to tax payers who could not otherwise fully use their credit to reduce their federal tax. For small business corporations, and for farmers and other incorporated businesses, the refund will be 40 percent of the unused investment tax credit earned in a year. For other businesses, the refundable portion will be 20 percent of unused investment credits.

Limited Partnerships

Individuals and corporations can invest in R&D ventures through a limited partnership to use the 100 percent deduction and the investment tax credit against their other income. Limited partners contribute capital and own an interest in the partnership, but are prohibited from participating in management. The limited partner is liable only to the extent of capital contributed.

1.4.2. Defence Industry Productivity Program

Support for technological development is also provided through the Department of Regional Industrial Expansion's Defence Industry Productivity Program (DIPP). This program, which is directed at companies in the defence industry and defence subcontractors, provides assistance for the development of products for export purposes, the acquisition of modern machine tools and other advanced manufacturing, test and quality control equipment to meet military standards. Assistance with pre-production expenses is provided to establish manufacturing sources in Canada for export markets. Assistance for defence market feasibility studies is also available. Contribution by DIPP is in the neighbourhood of $175 million in 1985-86.

Federal assistance is also offered though a variety of technology transfer and procurement programs administered by various other government departments and agencies.

2. POOL OF TALENT (MANPOWER)

2.1 Highly Qualified Manpower

A significant proportion of Canadians who enter the school system matriculate. From 1972 to 1983, the annual number of secondary school graduates rose from 233,000 to 290,000, at an annual average rate of 2.0 percent. Annual figures are shown in Table 1.

Table 1 demonstrates that a large proportion of secondary school graduates continue their education, either at the community college or university level. During the same period, the number of community college graduates increased from 48,000 in 1972, to 74,000 in 1983, at an annual average rate of 4.1 percent; and university graduates rose in total from 72,000 in 1972, to 89,000 in 1983, at an average rate of 2.0 percent per year.

These latter two groups, of course, would include students who might have been out of the school system for a time before continuing their education. The number of earned undergraduate and graduate diplomas and certificates has been increasing as well, at an annual average rate of 5.8 percent. From the figures in Table 1, it is evident that a significant proportion of university graduates continue and earn second and third degrees at the graduate level. The annual number of master's degrees grew from 10,000 in 1972, to 13,000 in 1984, at an annual average rate of 2.5 percent. The number of earned doctorates did not change significantly in each of the 10 years, averaging just under 1,800 per year.

These figures, taken together, show that Canada has built up a formidable labour force of highly qualified manpower. In fact, Canada, a country of 25 million, ranks 11th in the world in the resident number of scientists and engineers, and 11th also as to the proportion of professional and technical workers in the labour force.

2.1.1 Scientists, Engineers and Technologists

2.1.1.1 Occupational Distribution

Science, engineering and technology occupations can be subdivided into (a) natural sciences and engineering (NSE), and (b) social sciences and humanities (SSH). Table 2 illustrates the growth in each of those sub-sets between 1971 and 1983, by occupation. Over the 12-year period, the stock of NSE-oriented manpower increased by 70 percent, at an annual average rate of 4.5 percent. The largest group within the NSE sector was engineers and architects, which grew by about the same proportion, at the same rate. The SSH sector increased by 154 percent, at an average annual rate of 8.1 percent. Those in the social work and related fields comprised the largest proportion, but grew at a slower average rate of 6.9 percent per year.

TABLE I

GRADUATES BY LEVEL, CANADA, 1972 TO 1983

Year	Secondary school graduates	Community college diplomas	Undergraduate level diplomas and certificates	Graduate level diplomas and certificates	Bachelor's and first professional degrees	Master's degrees	Earned doctorates
1972	232,873	47,709	8,159	966	72,416	10,277	1,724
1973	239,258	50,052	9,045	948	70,664	10,603	1,929
1974	250,068	53,384	8,621	1,085	74,851	10,196	1,896
1975	255,010	54,348	7,887	1,112	80,754	11,068	1,840
1976	266,445	56,655	10,327	1,395	83,292	11,555	1,693
1977	288,193	60,687	9,261	1,270	87,356	12,375	1,702
1978	294,246	64,891	12,376	1,771	89,349	12,637	1,819
1979	292,013	67,883	12,339	1,531	87,238	12,351	1,803
1980	296,138	67,254	11,685	1,621	86,410	12,432	1,738
1981	304,112	65,751	13,880	1,417	84,926	12,903	1,816
1982	305,933	71,910	16,025	1,504	87,106	13,110	1,715
1983	289,078	74,131	15,337	1,654	89,770	13,925	1,821

Source: Statistics Canada, Education in Canada, 1984.
Statistics Canada, Universities: Enrolment and Degrees, 1983.

TABLE 2

SCIENTISTS, ENGINEERS AND TECHNOLOGISTS, BY OCCUPATIONAL GROUP

Occupational Group	1971	1983
	thousands	
NSE	223	378
Physical sciences	32	47
Life sciences	17	29
Architects and engineers	79	132
Architects and engineers related	69	88
Mathematicians, statisticians and systems analysts	26	82
SSH	54	137
Social sciences	11	27
Social work and related fields	27	60
Library, museum and archival sciences	10	29
Other occupations in social sciences and related fields	6	21
TOTAL	277	515

Source: Statistics Canada, Science and Technology Indicators 1984.

2.1.1.2 Bachelor's and First Professional Degrees

A comparison of the number and proportion of bachelor's and first professional degrees awarded in 1970 and 1983 is shown in Table 3. While the average proportions in the NSE and SSH sectors did not change, some internal shifts were encountered. In the NSE sector, there was a move away from math and physical sciences toward health professions and engineering. In the SSH sector, larger redistributions occurred from the humanities and education fields into the social sciences. Over the 13-year period, the fastest growth was in the social sciences, engineering and applied sciences, and the health professions.

TABLE 3

BACHELOR'S AND FIRST PROFESSIONAL DEGREES AWARDED

	1970		1983		Growth Rate Average	
	No.	%	No.	%	Annual %	Total %
NSE	14391	28.1	24185	29.7	4.1	68.1
Agriculture & Biological Sciences	3255	6.4	4811	5.9	3.1	47.8
Engineering & Applied Sciences	4027	7.9	7734	9.5	5.2	92.1
Health Professions	3475	6.8	6089	7.5	4.4	75.2
Mathematics & Physical Sciences	3634	7.1	5551	6.8	3.3	52.8
SSH	36843	71.9	57187	70.3	3.4	55.2
Education	12306	24.0	15457	19.0	1.8	25.6
Humanities[1]	10383	20.3	11658	14.3	0.9	12.3
Social Sciences	14154	27.6	30072	37.0	6.0	112.5
TOTAL*	51234	100	81372	100	3.6	58.8

1) Includes fine and applied arts.
* Does not include unclassified degrees.

Source: Statistics Canada, Science and Technology Indicators 1984
Statistics Canada, Universities: Enrolment and Degrees, 1983

A breakdown of bachelor degrees awarded in engineering is shown in Table 4. Although there were major changes in technology between the years shown, there were no significant trends into or out of any of the general fields listed, according to the proportion of degrees awarded.

TABLE 4

BACHELOR'S DEGREES IN ENGINEERING, BY FIELD OF STUDY

Field of Study	1970		1975		1982		1983	
	No.	%	No.	%	No.	%	No.	%
Chemical	494	14	367	9	688	11	759	11
Civil	706	20	979	24	1314	21	1168	17
Electrical	883	25	979	24	1502	24	1602	24
Mechanical	777	22	856	21	1502	24	1691	25
Other	671	19	897	22	1251	20	1469	22
TOTAL	3531	100	4078	100	6257	100	6689	100

Source: Statistics Canada, Science and Technology Indicators 1984
Statistics Canada, Universities: Enrolment and Degrees, 1983

2.1.1.3 Master's Degrees

From 1975 to 1983, the annual number of master's degrees awarded increased by 26.1 percent. As with the bachelor's and first professional degrees, there was only a minimal difference in composition between the NSE and SSH sectors, but within each sector, there were changes of some significance. (See Table 5.) In the NSE sector, the actual number of master's degrees awarded in math and physical sciences increased by a mere 1.5 percent The fastest growth was in the health professions. In the SSH sector, there was a decline of 5.1 percent in degrees awarded in the humanities, with growth in both education (40.2 percent) and social sciences (33.7 percent).

TABLE 5

MASTER'S DEGREES AWARDED, 1975 AND 1983

	1975		1983		Growth Rate	
	No.	%	No.	%	Average Annual %	Total %
NSE	2560	23.2	3316	23.8	3.3	29.5
Agricul. & Biological Sciences	473	4.3	624	4.5	3.5	31.9
Engineering & Applied Sciences	963	8.7	1285	9.2	3.7	33.4
Health Professions	303	2.8	574	4.1	8.3	89.4
Mathematics & Physical Sciences	821	7.4	833	6.0	.2	1.5
SSH	8471	76.8	10597	76.2	2.8	25.1
Education	2161	19.6	3030	21.8	4.3	40.2
Humanities[1]	2256	20.5	2142	15.4	-.7	-5.1
Social Sciences	4058	36.8	5425	39.0	3.7	33.7
TOTAL*	11031	100	13913	100	2.9	26.1

[1] Includes fine and applied arts.

* Does not include unclassified degrees.

Source: Statistics Canada, Science and Technology Indicators 1984.

2.1.1.4 Doctoral Degrees

Data describing earned doctorates in selected years, by field of study, are shown in Table 6. One can see a trend away from natural sciences and engineering over the period. Most notably, the proportion of doctorates in mathematics and the physical sciences declined, while those in the social science fields rose. Finally, the proportion of doctorates granted in the area of the health professions appears to be increasing, as well as that in education.

TABLE 6

EARNED DOCTORATES, BY FIELD OF STUDY

	1970	%	1976	%	1983	%
NSE	972	70.9	869	51.3	981	54.0
Agriculture & Biological Sciences	247	18.0	197	11.6	247	13.6
Engineering & Applied Sciences	191	13.9	188	11.1	220	12.1
Health Professions	87	6.3	105	6.2	174	9.6
Mathematics & Physical Sciences	447	32.6	379	22.4	340	18.7
SSH	400	29.1	818	48.3	835	46.0
Education	78	5.7	157	9.3	189	10.4
Humanities[1]	164	12.0	264	15.6	261	14.4
Social Sciences	158	11.5	397	23.5	385	21.2
TOTAL *	1,372	100	1,693	100	1,816	100

[1] Includes fine and applied arts.

* Does not include unclassified degrees

Source: Statistics Canada, Science and Technology Indicators 1984
Statistics Canada, Universities: Enrolment and Degrees, 1983

2.1.1.5 Industrial Distribution

From 1971 to 1983, the number of scientists, engineers and technologists, classified by industry grew by 83.8 percent at an annual average rate of 5.2 percent, from 277 thousand to 509 thousand. This is shown in Table 7. During the 12 years, there were 2 significant shifts in industrial concentration. First, the services sector, which employed one-third of the total in 1971, increased its share to 41.0 percent. This came at the expense of most other sectors, but especially manufacturing, whose share of the total declined from 23.5 percent in 1971 to 17.3 percent in 1983. The only industry to experience a reduction in numbers was construction, which, over the period, lost some 4,000 persons, or 36 percent of its 1971 share.

A more detailed look at the services and manufacturing industries is shown in Tables 8 and 9. SSH sector occupations rose more quickly than those in the NSE from 1971 to 1983: a 165 percent compared to 106 percent. Within the SSH sector, the numbers involved in library, museum and archival sciences rose most rapidly (213 percent). This might be explained by the emerging need to organize, catalogue and distribute the vast amounts of information and data which became available and were required by a more demanding computer-oriented service sector. Reflecting these same considerations, but from a user standpoint, the mathematics, statistics and systems analysis group, in the NSE sector, increased in numbers from 5,000 in 1971 to 26,000 in 1983; an average annual rate of 14.7 percent, for a total increase of 420 percent. This group largely analyzes and manipulates data and information, and the extraordinary growth can largely be explained by the same factors. Architects and engineers increased in total numbers by 141 percent to 41,000, as the demand for consultants and designers of buildings, plants, machinery increased.

TABLE 7

SCIENTISTS, ENGINEERS & TECHNOLOGISTS, BY INDUSTRY

	1971		1983		Growth	
	No. (thousands)	%	No. (thousands)	%	Ave. Ann. %	Total %
Agriculture	1	0.4	*	*	n.a	n.a
Other Primary	15	5.4	29	5.6	5.7	93.3
Manufacturing	65	23.5	89	17.3	2.7	36.9
Construction	11	4.0	7	1.4	-3.7	-36.4
Transportation	26	9.4	48	9.3	5.2	84.6
Trade	7	2.5	15	2.9	6.6	114.3
Finance	5	1.8	15	2.9	9.6	200.0
Services	92	33.2	211	41.0	7.2	129.4
Public Admin.	55	19.9	95	18.5	4.7	72.7
Unclassified	0	0	6	1.2	--	--
TOTAL	277	100	515	100	5.2	83.8

* Less than 500.
n/a Not available.

Source: Statistics Canada, Science and Technology Indicators 1984.

TABLE 8

SCIENTISTS, ENGINEERS & TECHNOLOGISTS IN SERVICES

	1971		1983		Growth	
	No. (,000)	%	No. (,000)	%	Ave. Ann. %	Total %
NSE	55	59.8	113	53.6	6.2	105.5
Physical Sciences	8	8.7	11	5.2	2.7	37.5
Life Sciences	7	7.6	7	3.3	0	0
Architects & Engineers	17	18.5	41	19.4	7.6	141.2
Arch., Eng. Related	18	19.6	28	13.3	3.8	55.6
Math., Stat., & Systems Analysts	5	5.4	26	12.3	14.7	420.0

SSH	37	40.2	98	46.4	8.5	164.9
Social Sciences	6	6.5	14	6.6	7.3	133.3
Social Work & Related	18	19.6	45	21.3	7.9	150.0
Library, Museum & Archival Sciences	8	8.7	25	11.9	10.0	212.5
Other SSH	5	5.4	14	6.6	9.0	180.0
TOTAL	92	100	211	100	7.2	129.4

Source: Statistics Canada, Science and Technology Indicators 1984.

In manufacturing, almost all the scientists, engineers and technologists are in the NSE sector. Total growth over the 1971 to 1983 period was 37 percent, compared to 129 percent in services. Highest growth was registered for the mathematics, statistics and systems analysis group, which rose by 100 percent, from 7,000 to 14,000 persons. The largest numerical group, composed of architects and engineers, increased from 27,000 to 35,000, or by a total of 30 percent. The slow growth rate for this group might be explained by the high rate of growth for their service sector counterparts. It appears that the consulting business may be replacing in-house expertise. This is partly a cost-cutting measure in manufacturing, but at the same time widens that industry's perspective by having many types of talent and expertise available on a call basis.

TABLE 9

SCIENTISTS, ENGINEERS & TECHNOLOGISTS IN MANUFACTURING

	1971		1983		Growth	
	No. (,000)	%	No. (,000)	%	Ave. Ann. %	Total %
NSE	63	96.9	86	96.6	2.6	36.5
Physical Sciences	11	16.9	16	18.0	3.2	45.5
Life Sciences	1	1.5	2	2.3	6.0	100.0
Architects, Engineers	27	41.5	35	39.3	2.2	29.6
Arch., Eng. Related	17	26.2	19	21.4	0.9	11.8
Math., Stat., & Systems Analysts	7	10.8	14	15.7	6.0	100.0
SSH	2	3.1	3	3.4	3.4	50.0
TOTAL	65	100	89	100	2.7	36.9

Source: Statistics Canada, Science and Technology Indicators 1984.

TABLE 10

GEOGRAPHIC DISTRIBUTION OF SCIENTISTS, ENGINEERS & TECHNOLOGISTS, 1983

(Thousands)

	Atlantic Provinces		Quebec		Ontario		Prairie Provinces		British Columbia		Canada	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
NSE	19	5.0	84	22.2	154	40.7	78	20.6	43	11.4	378	100
Physical Sciences	2	4.3	11	23.4	18	38.3	12	25.5	4	8.5	47	100
Life Sciences	2	6.9	6	20.7	9	31.0	7	24.1	5	17.2	29	100
Architects, Engineers	6	4.6	27	20.5	57	43.2	27	20.5	15	11.4	132	100
Arch., Eng. Related	6	6.8	19	21.6	30	34.1	20	22.7	13	14.8	88	100
Math., Stats. and Systems Analysts	3	3.7	21	25.6	40	48.8	12	14.6	6	7.3	82	100
SSH	9	6.6	35	25.6	50	36.5	22	16.1	21	15.3	137	100
Social Sciences	n.a	n.a	9	33.3	10	37.0	4	14.8	n.a	n.a	27	100
Social Work & Related	3	5.0	17	28.3	21	35.0	11	18.3	8	13.3	60	100
Libr. Museums, Archivists	n.a	n.a	5	17.2	13	44.8	5	17.2	n.a	n.a	29	100
Other	n.a	n.a	4	26.7	6	40.0	2	13.3	n.a	n.a	15	100
TOTAL	28	5.4	119	23.1	204	39.6	100	19.4	64	12.4	515	100

n/a - not available

Source: Statistics Canada, Science & Technology Indicators 1984

TABLE 11

COMMUNITY COLLEGE DIPLOMAS GRANTED IN CAREER PROGRAMS, BY FIELD OF STUDY

Field of Study	1978/79	1979/80	1980/81	1981/82	1982/83*	Average Annual Growth %
Arts	4403	4700	4715	5204	5034	3.4
Secretarial	3674	4068	3566	3606	3809	.9
Management & Admin.	2422	2611	2941	3470	3998	13.4
Data Processing & Computer Science	1212	1300	1743	2293	2856	23.9
Financial Management	2518	3207	3072	3168	3364	7.5
Other Business	2032	2323	2665	2897	2756	7.9
Commun. & Social Serv.	6305	6392	6611	6691	7343	3.9
Education	154	136	120	101	147	-1.2
Architecture	1171	1250	1206	1214	1266	2.0
Mechanical Engineering	1043	1280	1232	1495	1420	8.0
General Engineering	2012	2069	2174	2022	2403	4.5
Other Engineering	473	553	684	872	740	11.8
Nursing	7089	6998	6790	6479	6676	-1.5
Medical Treatment Tech.	2725	2370	2428	2458	2496	-2.2
Other Medical Services	594	534	501	571	630	1.5
Natural Resources	2755	2909	3096	3031	3289	4.5
Chemical Technology	672	640	646	703	664	-.3
Electrical/Electronic Technician	2563	2627	2641	2923	3157	5.4
Transportation	269	257	300	279	324	4.8
Other Misc. Programs	385	498	456	442	239	n/a
Not Reported	9	11	36	75	104	n/a
TOTAL	44480	46733	47623	49994	52715	4.3

* The 1982/83 figures are based on a revised classification system for fields of study.

n/a - not applicable.

Source: Statistics Canada, Post-secondary Education Sector, Education, Culture and Tourism Division.

TABLE 12

COMMUNITY COLLEGE DIPLOMAS GRANTED IN CAREER PROGRAMS, BY FIELD OF STUDY AND PROVINCE, 1982/83

	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Total
Health Sciences & Related	327	58	439	325	2354	3275	639	541	923	921	9802
Arts	-	29	-	16	563	2652	48	-	485	507	4300
Humanities & Related	-	11	-	-	173	405	20	-	74	51	734
Engineering & Applied Sciences	183	35	361	284	3699	5420	308	189	1539	812	12830
Natural Sciences & Primary Ind.	44	24	38	85	715	1434	5	38	668	232	3289
Social Sciences & Services	12	165	166	-	2137	3853	105	13	750	286	7490
Business & Commerce	111	144	101	147	4161	6274	346	141	1278	1224	13927
Other	-	-	-	-	2	311	-	-	28	2	343
TOTAL	677	466	1109	857	13804	23624	1471	922	5745	4035	52715 *

* including nine in the Northwest Territories

Source: Statistics Canada, Post-secondary Education Sector, Education Culture and Tourism Division.

2.1.1.6 Geographic Distribution

The geographic distribution of scientists and engineers is presented in Table 10. Ontario claims 41 percent of the NSE sector and 37 percent of the SSH, due to the nature and geographic distribution of the population and economy. Quebec has the next largest share, following which come the Prairies, B.C. and the Atlantic provinces.

2.2 Skilled Labour

2.2.1 Community Colleges

The community college system in Canada has produced a highly-skilled pool of labour, with post-secondary school qualifications below that of university. Table 11 lists the number of community college diplomas awarded in career programs, by field of study, from 1978/79 to 1982/83. The fastest-growing field of study was data processing and computer science, which, more than doubled, over the 5 years, growing at an average annual rate of 23.9 percent. Managerial and administrative diplomas rose at an average annual rate of 13.4 percent and mechanical and other engineering graduates rose at average rates of 8.0 and 11.8 percent respectively. Several courses of study declined over the period. Education diplomas decreased at an average annual rate of 13.12 percent from 1978-1981, before increasing substantially in 1982/83. The annual number of diplomas in nursing and medical treatment technologies fell at rates of 1.5 percent and 2.2 percent, respectively.

Nevertheless, nursing still made up one of the largest segments of the total, involving some 13.0 percent in 1982/83. Other large fields included community and social services (13.9 percent of the 1982/83 total), which rose at an annual average rate of 3.9 percent; financial management (6.4 percent of the total), which increased at a rate of 7.5 percent per year; natural resource technologies (6.2 percent of the total), which rose at an average annual rate of 4.5 percent; and electrical and electronic technologies (6.0 percent of the total), which rose over the period at an average rate of 5.4 percent. Overall, the number of diplomas awarded in career programs grew from 44,480 in 1978/79, to 52,715 in 1982/83, at an annual average rate of 4.3 percent.

The geographic distribution of the 52,715 recipients of community college diplomas in 1982-83 is listed in Table 12, by field of study. Some 45 percent were located in Ontario, with 26 percent in Quebec, 15 percent in the Prairie provinces, 8 percent in B.C. and 6 percent in the Atlantic provinces.

2.2.2 Apprentices and the Stock of Labour

In 1983, over 100,000 persons participated in the apprenticeship program in Canada. During that year, 11,832 certificates were granted with the interprovincial seal, which allows journeymen to practice their trade in several provinces, and 18,995 certificates were granted without interprovincial seal. The majority of apprentices are registered in the trades with the interprovincial standards examination - at year end 1983, some 92,274 of the 112,017 total (82.4 percent).

Geographically, the largest proportion of apprentices in 1983 were located in Ontario (35 percent), whereas 22 percent were registered in Alberta, 16 percent in Quebec, 12 percent in B.C., 9 percent in the Atlantic provinces, and 6 percent in Manitoba and Saskatchewan.

The range of trades represented by apprenticeship programs is wide, reflecting the demand for skilled labour in the Canadian work force. Of the 112,017 individuals registered in apprenticeship programs at year-end 1983, 20 separate trades had over 1000 registrants each (see Table 13).

The trades listed in Table 13 account for 82.9 percent of the total registrants in apprenticeship programs. Approximately 75 other trades make up the rest of the 112 thousand enrolled in 1983.

While there are no recent estimates of the labour force by occupation, the 1981 census provides some figures. In June 1981, there were 485,000 persons in processing occupations, 314,000 in machining occupations, 956,000 involved in product fabricating, assembling and repairing, and 784,000 in the construction trades. Added to these totals are about 30,000 graduating apprentices per year.

TABLE 13

APPRENTICESHIP TRAINEES, MAJOR TRADES
1983

Trade	% Total
Motor Vehicle mechanic	12.9
Construction electrician	12.4
Carpenter	11.5
Radio & Television Serviceman	5.0
Steamfitter-Pipefitter	4.8
Heavy Duty Equipment Mechanic	4.0
Industrial Electrician	3.8
Industrial Mechanic	3.8
Sheet Metal Worker	3.4
Motor Vehicle Body Repairer	3.3
Welder	2.7
Machinist	2.7
Hairdresser	2.4

Trade	% Total
Cook	2.2
Tool and Die Maker	1.6
Bricklayer	1.5
Refrigeration & Air Conditioning Mechanic	1.3
Electrician (miscellaneous	1.2
Ironworker	1.2
Painter and Decorator	1.2

Source: Statistics Canada

3. RESEARCH AND DEVELOPMENT

3.1 Total R&D Expenditures

R&D expenditures in the natural sciences and engineering in Canada increased from $1,160 million in 1971, to $5,344 million in 1984, at an annual average rate of 12.5 percent. (See Table 14.) In real terms, R&D rose from $1,160 million in 1971, to $1,745 million in 1984, at an annual average rate of 3.2 percent.

TABLE 14

RESEARCH & DEVELOPMENT EXPENDITURES IN

NATURAL SCIENCES & ENGINEERING

Year	GERD* ($ million)	GERD/GNP (%)	GERD ($1971) ($ million)
1971	1160	1.23	1160
1972	1195	1.14	1135
1973	1284	1.04	1120
1974	1504	1.02	1138
1975	1686	1.02	1138
1976	1833	0.96	1144
1977	2055	0.98	1193
1978	2348	1.01	1278
1979	2694	1.02	1329
1980	3204	1.08	1423
1981	3953	1.17	1585
1982	4591	1.29	1674
1983 p	4969	1.28	1706
1984 p	5344	1.27	1745

* Gross domestic expenditure on research and development.
p - preliminary

Source: Statistics Canada, Science and Technology Indicators, 1984.

3.2 Who is Performing Research and Development

The major proportion of R&D spending in Canada is conducted by private business enterprise. Over the 1971 to 1984 period, actual expenditures by the business sector grew at an average annual rate of 14.4 percent, from $464 million to $2,673 million. Business' share rose from 39 percent to over 50 percent of the total.

The government sector, both federal and provincial, performed proportionately less R&D in the 1980's, than in the 1970's (32 percent compared to 27 percent on average). The universities' share of R&D expenditure declined from 27 percent in 1971 to 20 percent in 1984. Table 15 illustrates the changing pattern of R&D performance.

Statistics Canada has recently published the Directory of Industrial Research and Development Facilities in Canada, 1985 (Catalogue No. 88-205-E). It lists all private industrial research facilities in Canada and describes the mandate of each facility, the area of research currently being undertaken, the type of research equipment in use, the number of scientists employed as well as other valuable information. This catalogue can be obtained, at a modest cost, from Statistics Canada, Ottawa, K1A 0T5, any Statistics Canada Reference Centre, or by telephoning (613) 990-9919 in Ottawa. Table 16 provides a geographic distribution of the data contained in this publication, the details of which are summarized in Section 4.2.

TABLE 15

GERD* BY PERFORMING ECONOMIC SECTOR

Year	Fed. Gov't	Prov. Gov'ts	Business Enterprise	Higher Education	Private non-profit	Total
			$ million (%)			
1971	341(29)	33(3)	464(40)	312(27)	10(1)	1,160(100)
1972	369(31)	39(3)	462(39)	313(26)	12(1)	1,195(100)
1973	395(30)	48(4)	503(39)	325(25)	13(1)	1,284(100)
1974	444(30)	59(4)	613(41)	373(25)	15(1)	1,504(100)
1975	472(28)	61(4)	700(42)	437(26)	16(1)	1,686(100)
1976	500(27)	70(4)	755(41)	481(26)	18(1)	1,833(100)
1977	556(27)	81(4)	857(42)	540(26)	21(1)	2,055(100)
1978	636(27)	86(4)	1,006(43)	594(25)	26(1)	2,348(100)
1979	646(24)	100(4)	1,266(47)	653(24)	29(1)	2,694(100)
1980	737(23)	121(4)	1,571(49)	741(23)	34(1)	3,204(100)
1981	865(22)	147(4)	2,082(53)	828(21)	41(1)	3,953(100)
1982	1,042(23)	170(4)	2,381(51)	953(21)	45(1)	4,591(100)
1983p	1,167(23)	191(4)	2,551(51)	1,010(20)	50(1)	4,969(100)
1984p	1,344(25)	199(4)	2,673(50)	1,070(20)	58(1)	5,344(100)

p - preliminary
* Gross domestic expenditure on research and development.

Source: Statistics Canada, Science and Technology Indicators, 1984.

TABLE 16
GEOGRAPHIC DISTRIBUTION OF PRIVATE INDUSTRIAL RESEARCH FACILITIES, 1985

Newfoundland	1
Nova Scotia	21
Prince Edward Island	2
New Brunswick	4
Quebec - East	15
Quebec - West	32
Metropolitan Montreal	60
Eastern Ontario	59
Central Ontario	103
Metropolitan Toronto	76
South Western Ontario	54
Northern Ontario	3
Manitoba	19
Saskatchewan	16
Alberta	52
British Columbia	54
TOTAL	571

Source: Statistics Canada, Directory of Industrial Research and Development Facilities in Canada 1985 (Catalogue #88-205-E).

Similar information on some 250 federal laboratories has also been collected and published as the Directory of Federal Government Scientific and Technical Establishments, 1985 (Catalogue No. 88-206-E).

The third and final phase of the project will be a directory of university-affiliated research institutes or technology centres, produced for the Department of Regional Industrial Expansion (DRIE). This will cover some 200 Canadian university institutes and provincial research organizations which provide R&D services and support to private industry.

The directory defines technology centres as organizations sustained (through grants, contributions or contracts) or operated by the federal government and which function predominantly in support of industry needs for new technology or specific technical skills.

The major criterion used in the project is a 'Direct Service to Industry Index'. Any establishment providing over 20 percent of its time and effort in direct support of industry was included. A partial list of these centres can be found in Appendix 1.

3.3 Who is Funding Canadian R&D

While provincial and federal governments performed less than 30 percent of R&D, they nevertheless funded about half. The proportion funded by the federal government declined from 47 percent in 1971, to about 37 percent in 1985. Provincial governments, on the other hand, increased their share of R&D and funding from 5 percent in 1971, to 6 percent in 1985. Funding by colleges and universities was down by half in 1985, compared to 1971. The private business sector has increased its share of R&D funding from about 30 percent in the early 1970's to over 40 percent in the early 1980's. The government's share is about average by international standards. In addition, 64 percent of government-funded R&D is performed by the government.

Figure 1 illustrates the relative importance of the federal government in funding and performing R&D in the four regions of Canada.

3.4 Where is R&D Performed

Over half (53.3 percent) of total Canadian R&D in 1983 was performed in Ontario, with 21.5 percent done in western Canada, 19.4 percent in Quebec and 5.3 percent in the Atlantic provinces. About 61 percent of all 1983 private business R&D was done in Ontario, marginally greater than the proportion of federal government R&D done in that province (51 percent).

The business enterprise sector is the largest performing and funding sector for all regions except the Atlantic provinces. The federal government is the predominant R&D performer and funder in that region.

Figure 2 llustrates the distribution of R&D by performing sector, for 1983, based on data contained in Table 18.

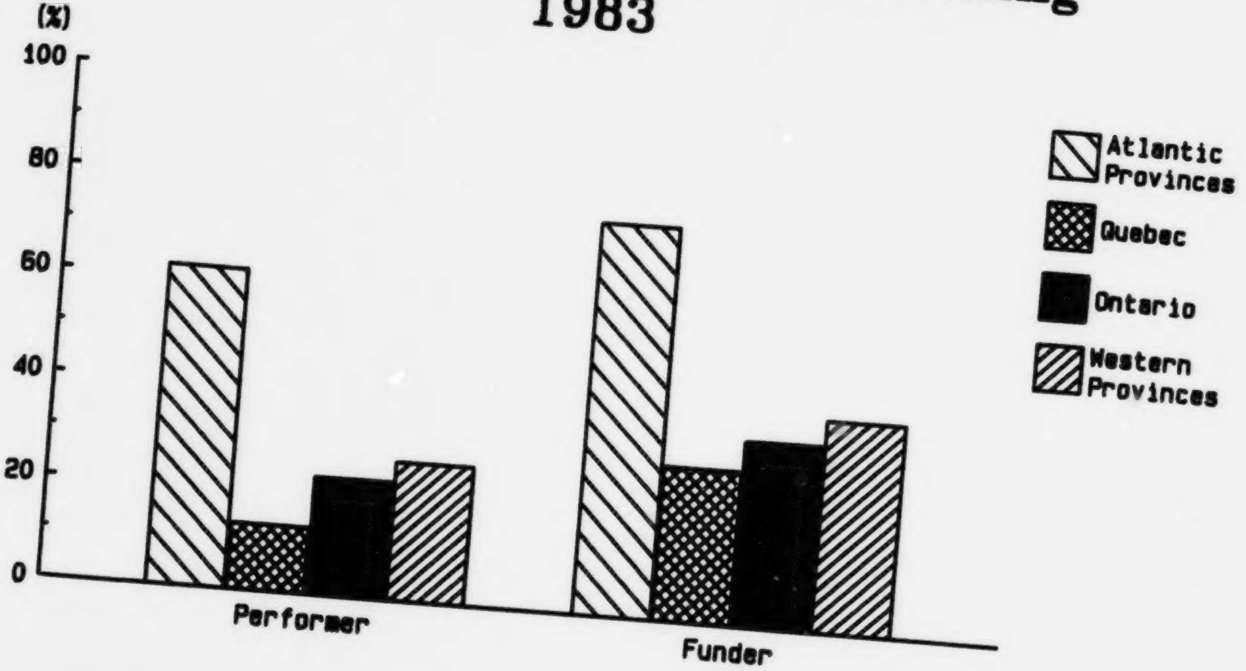
TABLE 17
GERD, BY FUNDING SECTOR

Year	Federal Gov't.	Provincial Gov'ts.	Business Enterprise	Higher Education	Private non-profit	Foreign	Total
			$ million (%)				
1971	539(47)	56(5)	365(32)	153(13)	20(2)	27(2)	1,160(100)
1972	567(48)	70(6)	362(30)	146(12)	21(2)	29(2)	1,195(100)
1973	605(47)	82(6)	397(31)	146(11)	22(2)	32(3)	1,284(100)
1974	664(44)	94(6)	499(33)	183(12)	29(2)	35(2)	1,504(100)
1975	702(42)	101(6)	570(34)	235(14)	29(2)	49(3)	1,686(100)
1976	752(41)	122(7)	612(33)	261(14)	36(2)	50(3)	1,833(100)
1977	830(40)	146(7)	689(34)	285(14)	41(2)	64(3)	2,055(100)
1978	929(41)	166(7)	822(35)	301(13)	56(2)	74(3)	2,348(100)
1979	971(37)	182(7)	1,070(40)	329(12)	61(2)	81(3)	2,694(100)
1980	1,124(36)	217(7)	1,343(42)	347(11)	63(2)	100(3)	3,204(100)
1981	1,381(35)	260(7)	1,751(44)	344(9)	83(2)	134(3)	3,953(100)
1982	1,655(36)	316(7)	1,908(42)	421(9)	86(2)	205(5)	4,591(100)
1983p	1,820(37)	346(7)	2,045(41)	446(9)	93(2)	219(4)	4,969(100)
1984p	2,034(38)	363(7)	2,143(40)	472(9)	103(2)	229(4)	5,344(100)

p.- preliminary

Source: Statistics Canada, Science and Technology Indicators 1984.

The Role of the Federal Government in R & D Funding and Performing
1983



Source: Science Statistics. June 1985.

TABLE 18

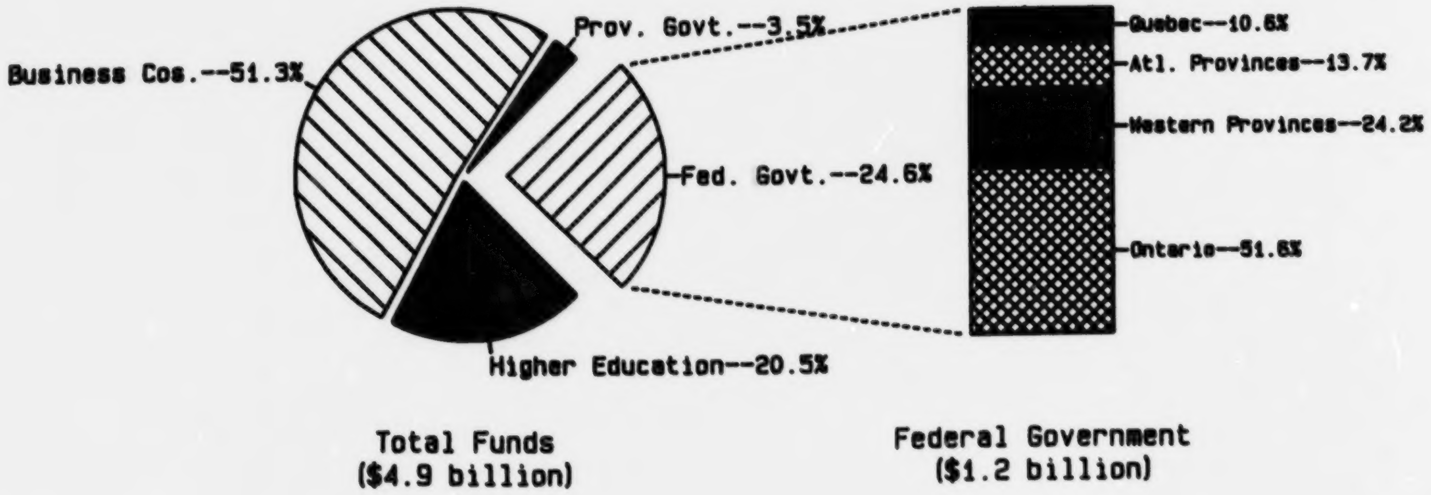
GEOGRAPHIC DISTRIBUTION OF R&D, 1983

Performing Sector	Atlantic Provinces	Quebec	Ontario	Western Provinces	Canada 1)
	---------------millions of dollars---------------				
Federal government	160	124	604	283	1,171
Provincial government 2)	8	31	54	77	170
Business enterprise	22	561	1,533	393	2,518
Higher education 3)	68	234	407	308	1,017
All sectors	258	950	7,598	1,060	4,876
	------------percentage of Canada totals------------				
Federal government	14	11	51	24	100
Provincial government 2)	5	18	32	45	100
Business enterprise	1	22	61	16	100
Higher education 3)	7	23	40	30	100
All sectors	5	19	53	23	100
	---------------percentage of regional totals--------				
Federal government	62	13	23	27	24
Provincial government 2)	3	3	2	7	3
Business Enterprise	9	59	59	37	52
Higher education 3)	26	25	16	29	21
All sectors	100	100	100	100	100
	-----------------percentage of all R&D--------------				
Federal government	3.3	2.5	12.4	5.8	24.0
Provincial government 2)	0.2	0.7	1.1	1.6	3.5
Business enterprise	0.5	11.5	31.4	8.0	51.6
Higher education 3)	1.4	4.8	8.4	6.3	20.9
All sectors	5.3	19.5	53.3	21.7	100.0

1) Including the Yukon and Northwest Territories.
2) Including provincial research councils and foundations.
3) Including private non-profit institutions.

Source: Statistics Canada, Science Statistics, June, 1985.

Distribution of Research & Development by Performing Sector – 1983



Source: Statistics Canada,
Science Statistics, June 1985.

4. INDUSTRIAL R&D IN CANADA

Throughout the industrialized world, technology-intensive industries provide a principal thrust of economic growth. A 1984 study by the Organization for Economic Cooperation and Development (OECD) found that in the advanced industrial economies, of the seven highest-growing industries, four were high research-intensive, constituting, requiring and benefitting from high levels of R&D. The three others were found to be medium to high in research intensity (measured by R&D expenditure as a percentage of total value of output).

TABLE 19

PERCENTAGE DISTRIBUTION OF REAL OUTPUT IN MANUFACTURING INDUSTRIES

1972 - 1982

	1972	1976	1980	1982
High Technology Industries	17.8	18.0	21.0	21.0
Other Manufacturing Industries	82.2	82.0	79.0	79.0
Total Manufacturing	100%	100%	100%	100%

Source: Office of Industrial Innovation, DRIE

Table 19 indicates the percentage distribution of real output in Canadian manufacturing industries, high-tech and others. High technology industries are identified on the basis of their ratio of R&D to sales. Industries included in this category were those whose R&D ratios were greater than the average for all manufacturing industries between 1975-82. As the table indicates, higher technology firms increased their share of real manufacturing output (in constant 1971 dollars) from 17.8 percent to 21 percent between 1972 and 1982. Tables 20 and 21 show the proportion of Canada's manufactured products exported according to technology level (R&D intensity) and the proportion of goods exported in the high-technology grouping.

While real output per person increased in all manufacturing sectors during the period in question, the increase was much greater in high technology than other manufacturing industries. Between 1972 and 1982, real output per person increased by a total of 16.75 percent in high technology industries as opposed to 9 percent for non-research intensive industries. For all manufacturing industries real output per person increased by 10.5 percent during the period.

TABLE 20

EXPORTS OF MANUFACTURED PRODUCTS BY TECHNOLOGY GROUP

(percentage of total)

	High	Medium	Low	Resource Related	Motor Vehicles
1968	14%	5%	13%	39%	30%
1975	14%	7%	14%	34%	31%
1983	15%	9%	13%	29%	35%

Source: Statistics Canada, Science and Technology Indicators, 1984

TABLE 21

EXPORTS OF HIGH-TECHNOLOGY PRODUCTS, BY PRODUCT GROUP

	Chemicals	Machinery	Office Machinery	Other & Parts	Aircraft Electrical	Scientific
1968	12%	4%	24%	28%	19%	7%
1975	15%	9%	36%	15%	16%	8%
1983	20%	12%	20%	17%	21%	10%

Source: Science and Technology Indicators, 1984

Total intramural expenditures on R&D in Canada are shown in Table 22. A more precise picture of the status of research and development undertaken in Canada can be obtained in a sectoral disaggregation of R&D data based on intramural R&D expenditures and the number of R&D performers in an industry.

TABLE 22

CURRENT INTRAMURAL R&D EXPENDITURE

ALL INDUSTRIES

1977-1985 ($ millions)

	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Total, all industries	786	886	1,074	1,358	1,847	2,157	2,190	2,448	2,635

* Estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

4.1. Sectoral Distribution of R&D

4.1.1 Energy

Canada has benefitted from extensive reserves of natural resources which have stimulated the development of world-class technologies in offshore and cold-weather production structures and systems, enhanced recovery techniques and heavy oils, pipeline instrumentation, slurry pipelines, remote sensing and automated mining techniques. The CANDU system is also recognized as one of the world's safest nuclear reactors.

In 1983, thirty-seven R&D performers undertook expenditures of $92 million. This figure is expected to rise to $104 million by 1985. Atomic Energy of Canada, which conducts almost 90 percent of Canadian atomic energy research saw its expenditures on R&D rise from $114 million in 1982-83 to $130.2 milion in 1984-85.

TABLE 23

CURRENT INTRAMURAL R&D EXPENDITURES, ENERGY

1977-1985 ($ millions)

	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Mines	14	16	18	26	48	45	35	40	40
Gas and oil wells	29	30	41	67	108	91	5	67	64
Total	43	47	58	93	157	136	92	107	104

* estimate

Source: Statistics Canada, Industrial Research and Development Indicators, 1983

TABLE 24

ATOMIC ENERGY OF CANADA LTD., R&D EXPENDITURES

1979-80 to 1984-85 ($ millions)

	1979-80	1980-81	1981-82	1982-83	1983-84	1984-85
R&D Expenditures:	74.5	78.8	90.7	114.1	122.8	148.1

Source: Statistics Canada, Federal Science Activities, 1984-85

TABLE 25

DISTRIBUTION OF R&D PERFORMERS, ENERGY

1983

	SIC*	Firms in SIC+
MINES AND WELLS (total firms: 37)		
Mines (total firms: 22)		
Placer gold mines	051	-
Gold quartz mines	052	-
Uranium mines	057	1
Iron mines	058	-
Miscellaneous metal mines	059	10
Coal mines	061	2
Asbestos mines	071	1
Peat extraction	072	-
Gypsum mines	073	-
Miscellaneous non-metal mines	079	3
Stone quarries	083	1
Sand pits or quarries	087	-
Other contract drilling	098	-
Miscellaneous services incidental to mining	099	6
Gas and Oil Wells (total firms: 15)		
Crude petroleum and natural gas mines	064	14
Contract drilling for petroleum	096	1

* Standard Industrial Classification, 1970

+ Individual firms may be counted more than once.

Source: Statistics Canada, Industrial Research and Development Indicators, 1983.

4.1.2 Wood Based Sector

As the world's largest exporter of lumber newsprint and pulp, Canada has well-established wood-based industries which are characterized by an extensive R&D infrastructure. This has contributed to the application of microelectronics to processing and manufacturing systems, the development of pollution abatement techniques and new product development such as liquid fuels.

Fourty-four R&D performers spent $67 million in R&D expenditures in 1983, a sum which is expected to rise to $79 million during 1985.

TABLE 26

CURRENT INTRAMURAL R&D EXPENDITURES, WOOD-BASED INDUSTRIES

1977 - 1985 ($ millions)

	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Wood-based Industries	34	33	48	60	69	68	67	75	79

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983.

TABLE 27

DISTRIBUTION OF R&D PERFORMERS, WOOD-BASED INDUSTRIES

1983

	SIC*	Firms in SIC+
WOOD BASED (total firms: 44)		
Wood (total firms: 8)		
Logging	031	1
Sawmills, planning mills and shingle mills	251	1
Veneer and plywood mills	252	1
Sash, door and other millwood plants	254	3
Wooden box factories	256	-
Coffins and caskets	258	-
Miscellaneous wood	259	2
Paper (total firms: 34)		
Pulp and paper mills	271	23
Asphalt roofing manufacturers	272	-
Paper box and bag manufacturers	273	6
Miscellaneous paper converters	274	5

* Standard Industrial Classification, 1970
+ Individual firms may be counted more than once.

Source: Statistics Canada, Industrial Research and Development Indicators, 1983.

4.1.3 Food and Chemicals

Canada's strength in chemical based products is centered around petrochemicals, alcohols, fertilizers and basic inorganic and organic chemicals. The various related industries supported 293 R&D performers with expenditures totalling $378 million. This figure climbed sharply in 1984 to $403 million but levelled off in 1985, at a projected level of $408 million.

TABLE 28

CURRENT INTRAMURAL R&D EXPENDITURES, CHEMICAL-BASED INDUSTRIES

1977 - 1985 ($ million)

Industry Group	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Food, Beverages and Tobacco	26	28	32	41	52	61	67	69	76
Rubber and Plastic Products	8	9	11	13	18	19	14	14	16
Textiles	4	5	6	8	10	13	12	13	12
Petroleum Products	55	60	65	100	169	134	119	130	116
Drugs and Medicines	26	29	38	48	47	54	59	61	63
Other Chemical Products	47	50	62	75	87	108	106	116	125
TOTAL	166	181	214	285	383	389	377	403	408

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983.

TABLE 29

DISTRIBUTION OF R&D PERFORMERS, CHEMICAL-BASED INDUSTRIES 1983

	SIC*	Firms in SIC+
CHEMICAL BASED (total firms: 293)		
Food, beverages and tobacco (total firms: 89)		
Fishing	041	2
Meat and poultry products	101	10
Fish products	102	3
Fruit and vegetable processing	103	9
Dairy products	104	8
Flour and breakfast cereal products	105	6
Feed industry	106	2
Bakery products	107	4
Miscellaneous food	108	32
Beverages	109	9
Leaf tobacco	151	-
Tobacco products	153	4
Rubber and plastic products (total firms: 32)		
Rubber products	162	7
Plastic fabricating	165	25
Textiles (total firms: 15)		
Cotton yarn and cloth mills	181	1
Wool yarn and cloth mills	182	2
Man-made fibre yarn and cloth mills	183	5
Cordage and twine industry	184	-
Felt and fibre processing mills	185	1
Carpet, mat and rug	186	-
Canvas products and cotton and jute bag	187	-
Automobile fabric accessories	188	-
Miscellaneous textile industries	189	6
Petroleum products (total firms: 13)		
Petroleum refineries	365	9
Miscellaneous petroleum and coal products	369	4
Drugs and medicines (total firms: 37)		
Manufacturers of pharmaceuticals and medicines	374	37
Other chemical products (total firms: 107)		
Manufacturers of mixed fertilizers	372	-
Manufacturers of plastics and synthetic resins	373	9
Manufacturers of paint and varnish	375	13
Manufacturers of soap and cleaning compounds	376	8
Manufacturers of toilet preparations	377	4
Manufacturers of industrial chemicals	378	25
Miscellaneous chemicals	379	48

* Standard Industrial Classification, 1970
+ Individual firms may be counted more than once.

Source: Statistics Canada: Industrial Research and Development Indicators, 1983.

4.1.4 Fabricated Materials

Canada's abundant supply of raw materials has been the foundation of the fabricated materials industry. Availability of resources and accessibility to nearby U.S. markets have been combined with sophisticated aluminum and metal rolling, casting and extending techniques.

Research and development successes have occurred in the areas of pollution abatement, the implementation of energy-efficient process equipment and industrial hygiene equipment. Such activity was completed by 119 performers in 1983, accounting for $122 million. Fairly steady growth in expenditures is expected with the 1985 figure projected at $138 million for the sector.

TABLE 30

CURRENT INTRAMURAL R&D EXPENDITURES, FABRICATED MATERIALS

1977-1985 ($ millions)

Industry Group	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Primary metals ferrous)	13	16	18	20	22	22	20	23	25
Primary metals (non-ferrous)	43	45	50	62	70	76	76	86	91
Metal fabricating	11	11	13	17	20	27	26	23	22
TOTAL: Fabricated Materials	67	72	81	99	112	125	122	132	138

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

TABLE 31

DISTRIBUTION OF R&D PERFORMERS, FABRICATED MATERIALS

1983

	SIC*	Firms in SIC+
METALS (total firms: 119)		
Primary metals (ferrous) (total firms: 11)		
Iron and steel mills	291	7
Steel pipe and tube mills	292	1
Iron founderies	294	3
Primary metals (non-ferrous) (total firms: 11)		
Smelting and refining	295	4
Aluminum rolling, casting and extruding	296	2
Copper and alloy rolling casting and extruding	297	1
Metal rolling, casting and extruding	298	4
Metal fabricating (total firms: 97)		
Boiler and plate works	301	3
Fabricated structural metal	302	3
Ornamental and architectural metal industry	303	12
Metal stamping, pressing and coating industry	304	19
Wire and wire products	305	5
Hardware, tool and cutlery manufacturers	306	11
Heating equipment manufacturers	307	16
Machine shops	308	8
Miscellaneous metal fabricating	309	20

* Standard Industrial Classification, 1970
+ Individual firms may be counted more than once.

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

4.1.5 Machinery and Transportation Equipment Manufacturing

Canada's machinery industry is a strong supplier of custom-engineered equipment and a contributor to world class standards of technology. In the transportation sector, for example, Canadians have been at the forefront in the application of robotics to manufacturing. Advanced Turbofan aircraft engines, which improve fuel consumption, have also been developed in Canada. During 1983, over 190 performers devoted $510 million to R&D efforts. The twelve aircraft and parts manufacturers accounted for over half this amount. R&D expenditures are projected to rise to approximately $560 million during 1985.

TABLE 32

CURRENT INTRAMURAL R&D EXPENDITURES

MACHINERY AND TRANSPORTATION EQUIPMENT MANUFACTURING
1977-1985 ($ millions)

Industry Group	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Business machines	13	16	22	38	50	74	86	105	133
Other machinery	39	41	51	63	81	89	78	69	70
Aircraft and parts	94	128	148	158	238	272	266	267	288
Other transportation equipment	21	21	31	37	57	623	81	71	70
TOTAL:	167	206	221	296	426	497	511	512	561

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983.

TABLE 33

DISTRIBUTION OF R&D PERFORMERS,

MACHINERY AND TRANSPORTATION EQUIPMENT MANUFACTURING
1983

	SIC*	Firms in SIC+
MACHINERY AND TRANSPORTATION EQUIPMENT (total firms: 192)		
Business machines (total firms: 20)		
Office and store machinery	318	20
Other machinery (total firms: 127)		
Agricultural implement industry	311	18
Miscellaneous machinery and equipment manufacturers	315	105
Commercial refrigeration and air conditioning equipment manufacturers	316	4
Aircraft and parts (total firms: 12)		
Aircraft and parts	321	12
Other transportation equipment (total firms: 33)		
Motor vehicle manufacturers	323	3
Truck body and trailer manufacturers	324	3
Motor vehicle parts and accessories	325	17
Railroad rolling stock	326	3
Shipbuilding and repair	327	-
Boatbuilding and repair	328	5
Miscellaneous vehicle manufacturers	329	2

* Standard Industrial Classification, 1970

+ Individual firms may be counted more than once.

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

4.1.6 Other Manufacturing

Other manufacturing industries, which include non-metallic mineral products, dedicated $24 million to eight-five R&D performers in 1983, a level which is likely to be roughly constant in the next two years.

TABLE 34

CURRENT INTRAMURAL R&D EXPENDITURES

OTHER MANUFACTURING
1977-1985 ($ millions)

Industry Group	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Other manufacturing industries	3	4	5	10	11	18	12	14	12
Non-metallic mineral products	5	6	7	8	10	11	12	12	14
TOTAL:	8	10	12	18	21	29	24	26	26

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

TABLE 35

DISTRIBUTION OF R&D PERFORMERS, OTHER MANUFACTURING
1983

	SIC*	Firms in SIC+
OTHER MANUFACTURING (total firms: 85)		
Non-metallic mineral products (total firms: 21)		
Clay products	351	3
Cement manufacturers	352	3
Stone products	353	1
Concrete products	354	1
Ready-mix concrete	355	-
Glass and glass products	356	2
Abrasives manufacturers	357	3
Lime manufacturers	358	-
Miscellaneous non-metallic mineral products	359	8
Leather tanneries	172	1
Shoe factories	174	2
Leather glove factories	175	-
Leather luggage	179	-
Knitting mills (except hosiery)	239	2
Men's clothing	243	-
Women's clothing	244	-
Children's clothing	245	-
Fur goods	246	-
Foundation garment	248	1
Miscellaneous clothing	249	-
Household furniture manufacturers	261	3
Office furniture	264	1

Other manufacturing industries (total firms: 64)		
Miscellaneous furniture and fixtures	266	2
Electric lamp and shade	268	-
Commercial printing	286	6
Platemaking, typesetting and trade bindery	287	1
Publishing only	288	-
Publishing and printing	289	1
Jewellery and silverware	392	4
Sporting goods and toys	393	6
Signs and displays	397	3
Miscellaneous manufacturing	399	31

* Standard Industrial Classification, 1970
+ Individual firms may be counted more than once.

Source: Statistics Canada, Industrial Research and Development Indicators, 1983.

4.1.7 Communications - Electrical Products

Canadian involvement in the communications sector can be traced back to the invention of the telephone in Brantford, Ontario. Today, Canadian telecommunications digital switching equipment is recognized as the industry standard. The communications equipment industry group has an active research and development component, which in 1983 consisted of 111 performers and expenditures of $523 million. This figure is expected to surge by approximately $200 million in the two years subsequent. There were 75 R&D performers in the "other electrical products" industry group which accounted for $82 million in funding during 1983, a figure expected to rise to $99 million by 1985. Manufacturers of scientific and professional equipment allocated 51 R&D performers $26 million with growth to $32 million anticipated for 1985.

TABLE 36

CURRENT INTRAMURAL R&D EXPENDITURES,

COMMUNICATIONS AND ELECTRICAL PRODUCTS
1977-1985 ($ millions)

Industry Group	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Communications equipment	141	160	193	231	328	450	523	640	716
Other electrical products	30	36	49	62	71	78	82	92	99
Scientific and professional equipment	6	9	10	12	17	24	26	32	32
TOTAL:	177	205	252	305	416	552	631	764	847

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983.

TABLE 37

DISTRIBUTION OF R&D PERFORMERS, COMMUNICATIONS AND ELECTRICAL PRODUCTS

1983

ELECTRICAL (total firms: 237)	SIC*	Firms in SIC+
Communications equipment (total firms: 111)		
Communications equipment	335	111
Other electrical products (total firms: 75)		
Manufacturers of small electrical applicances	331	4
Manufacturers of major applicances (electric and non-electric)	332	4
Manufacturers of lighting fixtures	333	2
Manufacturers of household radio and television receivers	334	3
Manufacturers of electrical industrial equipment	336	28
Manufacturers of electrical wire and cable	338	3
Manufacturers of miscellaneous electrical products	339	31
Scientific and professional equipment (total firms: 51)		
Scientific and professional equipment	391	51

* Standard Industrial Classification, 1970

+ Individual firms may be counted more than once.

Source: Statistics Canada, Industrial Research and Development Indicators, 1983.

4.1.8 Services

The services sector has been a rapidly growing part of the international economy, a trend which is reflected in Canada. Canadian engineering firms have carved an increasingly large share of the international market for engineering and scientific services. Canadian experience in hydro-electric power generation is world renowned. Expenditures on electrical power research and development grew from $109 million in 1982 to an anticipated level of $142 million in 1985. During 1983, the services sector allocated $367 million to R&D expenditures among 430 performers. The projected 1985 figure for the industry is $470 million.

TABLE 38

CURRENT INTRAMURAL R&D EXPENDITURES, SERVICES
1977-1985 ($ millions)

Industry Group	1977	1978	1979	1980	1981	1982	1983	1984*	1985*
Transportation and other utilities	52	41	41	43	69	93	100	108	115
Electrical power	38	45	59	70	83	109	108	135	142
Engineering and scientific services	26	35	41	59	66	89	88	99	117
Other non-manufacturing industries	10	12	14	26	45	71	71	88	96
TOTAL:	125	132	155	202	263	362	367	430	470

* estimate

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

TABLE 39

DISTRIBUTION OF R&D PERFORMERS, SERVICES
1983

	SIC*	Firms in SIC+
SERVICES (total firms: 430)		
Transportation and other utilities (total firms: 33)		
Air transport	501	1
Service incidental to air transport	502	-
Railway transport	503	2
Water transport	504	2
Services incidental to water transport	505	-
Moving and storage, used goods, uncrated	506	1
Other truck transport	507	1
Bus transport, inter-urban and rural	508	1
Urban transit systems	509	1
Taxicab operations	512	-
Pipeline transport	515	3
Highway and bridge maintenance	516	-
Miscellaneous services incidential to transport	517	-
Other transportation	519	-
Grain elevators	524	2
Other storage and warehousing	527	-
Radio and television broadcasting	543	7
Telephone systems	544	6
Telegraph and cable systems	545	-
Post office	548	-

	SIC*	Firms in SIC+
Transportation and other utilities (total firms: 33)		
Gas distribution	574	3
Water systems	576	2
Other utilities	579	1
Electrical power (total firms: 7)		
Electrical power	572	7
Engineering and scientific services (total firms: 217)		
Engineering and scientific services	864	217
Other non-manufacturing industries (total firms: 173)		
Building costruction	404	2
Highways, bridge and street construction	406	1
Other construction	409	1
Special trade contractors	421	7
Wholesalers of electrical machinery equipment and suppliers	621	8
Wholesalers of machinery and equipment, n.e.s.	623	7
Wholesalers of lumber and building materials	626	1
Wholesalers, n.e.s.	629	5
General merchandise stores	642	1
Gasoline service stations	654	1
Retail stores, n.e.s.	699	2
Other credit agencies	703	2
Security brokers and dealers (including exchanges)	705	1
Investment and holding companies	707	1
Insurance and Real Estate agencies	735	2
Real Estate Operators	737	1
Computer services	853	21
Security and Investigation Securities	855	1
Offices of architects	863	1
Office of management and business consultants	867	10
Miscellaneous services to business management	869	74
Labour organizations and trade associations	891	6
Photographic services, n.e.s.	893	2
Services to building and dwellings	898	-
Miscellaneous services, n.e.s.	899	15

* Standard Industrial Classification, 1970

+ Individual firms may be counted more than once.

Source: Statistics Canada: Industrial Research and Development Indicators, 1983

4.2. Industrial Research Associations

Industrial research associations have generally been established for particular industries to conduct R&D on common problems. Some of these organizations are self-supporting, while others are supported jointly by private companies and government. Details of some of these associations are presented in this section.

The Sulphur Development Institute of Canada is a non-profit association incorporated in 1973, at Calgary. It is supported by government and industry, with the principal objective of developing and establishing new uses and existing markets for Canadian sulphur. To this end, it conducts feasibility and research studies for various clients. Additionally, the Institute co-ordinates and disseminates technical information on all aspects of sulphur.

The Forest Engineering Institute of Canada was incorporated in 1975 to conduct R&D for the benefit of forest-based industries in the following areas:

- extraction, processing and transportation of wood;
- mechanization of silvicultural operations; and,
- development of new or improved technology for small woodlot operations.

The objective is to improve the overall efficiency of operations associated with wood harvesting and silviculture. Although most of the Forest Engineering Institute's activities are conducted in response to the needs of the forest industries, it also undertakes specific assignments under contract. Library services are provided to meet the requirements of its R&D program and of member companies' staff. On-line computerized search services of more than 100 data bases are available for a variety of subjects. Journals, indexes and patent gazettes are monitored for new patents relating to the mechanization of wood harvesting and silviculture. The library acquires the patent descriptions and classifies them into its existing collection.

In 1983, its activities covering 60 projects, required 51 person-years and cost $3.1 million.

The Canadian Gas Research Institute at Toronto was incorporated in 1974 as a non-profit association with the objective of performing applied reseach in response to the needs of the natural gas industry. It is affiliated with the Canadian Gas Association, the national trade organization for the gas industry and has developed expertise in a number of areas, including low- and medium-temperature heat transfer, combustion analysis and burner design, corrosion and materials research, cathodic protection systems and equipment evaluation.

This association used 18 person-years in 1983 to carry out 16 projects. Total expenditures were $920,000.

The Centre for Research and Development in Masonry is a non-profit association established in 1979 at Calgary, to promote the advancement of the theory and practice of masonry. It is self-supporting, deriving its revenue from grants-in-aid for research, consulting and testing activity, sales of publications, industrial funding and membership fees. In addition to R&D in masonry, the Centre has an information service and dissemination program. State-of-the-art reports and publications devoted to masonry are available from the library of the Centre. During the last completed year, it used eight person-years to carry out 17 projects.

The Canadian Plastics Institute is a newly-created independent body established, in Toronto, by the plastics industry to offer a research and development capability, and a technical information service for use in the plastics field. It is the goal of this association to make the Canadian plastics industry more technologically aware in order that it be more competitive domestically and internationally. The Institute is currently being staffed and facilities are being set up, to provide the services. It is planned that a computerized data base on physical properties, sources and applications of plastic materials will be available to assist the transfer of information to clients.

The Pulp and Paper Research Institute of Canada, founded in 1925, is a non-profit research and educational association supported by the pulp and paper industry and the federal government. The Institute maintains laboratories at Pointe-Claire, Quebec, which are provided by the federal government. It also leases facilities at Vancouver, B.C. from Forintek Canada Corporation. Facilities are also made available to the Institute by McGill University and the University of British Columbia.

R&D programs are focused on a number of areas such as mechanical pulping, chemical pulping and bleaching, papermaking, materials development, environmental science, systems engineering and technological forecasting. The Association also engages in contract R&D work for individual pulp and paper companies and government departments. Other services include library and information services, chemical analysis, computer facilities and physical testing. Students admitted to McGill University are permitted to carry out their thesis work under the direction of Institute staff members. A similar postgraduate research program exists in the Department of Chemical Engineering at the University of British Columbia.

It is the largest industrial research association, with a budget of $15.5 million in 1983, and a staff of roughly 300.

Forintek Canada Corporation is an independent non-profit association founded in 1979 to conduct R&D for the wood products sector of Canada's forest industry. This association has two laboratory facilities, one located at Vancouver and the other at Ottawa. Both are involved in R&D areas such as composite products, biotechnology, lumber manufacturing technology, building construction, and wood protection and engineering.

In addition to R&D, Forintek provides education, training and technical services in materials evaluation to industry. Total expenditures in 1983 were $10.5 million, allowing it to devote 20 person-years to 200 projects.

The Welding Institute of Canada (originally the Canadian Welding Development Institute) is an independent non-profit association established in 1973 to provide research and technical assistance to industry. It has two laboratory facilities for metallurgical, fracture, welding process and inspection programs, one at Oakville, Ontario and another at Montreal, Québec. R&D capability exists in areas such as fracture research, weldability of steels, development of advanced welding processes, welding fume research and improving properties of welds. In addition to doing contract R&D, the Institute provides education and training programs to industry, and maintains extensive library and technical information resources, with documents from the International Institute of Welding Commissions.

5. CRITICAL MASS

5.1 What Is It?

Threshold technologies are increasingly more complex, more integrated with one another, and require research across a broad range of disciplines. As a result, development of these technologies is more costly and requires diverse resources, of which a broad range of scientific personnel is one component. Hence, advanced technology industries tend to locate in "critical mass" areas.

In the high technology industries, a critical mass consists of a force of qualified personnel, located close to an institute of higher education of good reputation, surrounded by sources of capital and entrepreneurs of high-risk ventures situated at one location, all coming together with sufficient potential to begin creating and establishing high technology enterprises.

5.2 Prerequisites Needed to Create A Critical Mass

The primary requisite to create a critical mass is a motivated and highly educated and qualified population, labour force and business community, willing to undertake higher risks in the field. Second, there must be an atmosphere of higher learning and a willingness on the part of a university or college to actively participate with industry and talented individuals in research. A third factor is a supportive environment in which government, industry and qualified personnel are willing to undertake high risk ventures. This would include the establishment of laboratories; and, the creation of incentives, write-offs and other tax breaks to help alleviate the high risks and costs of high tech research. Fourth, there must be an adequate source of capital and entrepreneurial spirit. This must be combined with experienced and talented risk-taking managers who understand the nature of the industry and who are capable of guiding a company from its embryonic state to its limits of growth within a short period.

5.3 How it is Reflected in Canada

One example is the National Capital Region - Ottawa and its satellite cities of Gloucester, Nepean and Kanata. Ottawa, building on the success in the 1950's of such firms as Bell Northern Research and Mitel, has become "Silicon Valley North" with more than 400 high-tech firms (12 new high-tech manufacturing companies and 60 new sales and service companies have recently been established). Carleton University and the University of Ottawa, two first-class institutions with excellent scientific and technical capabilities, support the area's microelectronics industry. The Universities and the headquarters of the national government, ensure an excellent supply of qualified scientific and managerial personnel, which has attracted high-risk capital and similarly qualified entrepreneurs.

Another example is Calgary, with at least 150 high-tech companies. Approximately two-thirds of Alberta's high-tech companies are located there, and one-seventh of the world's seismic industry is based in Calgary. In 1981, the Calgary Research and Development Authority (CRDA) was established, a tripartite agency (City of Calgary, Chamber of Commerce and the University of Calgary) with the mandate of diversifying Calgary's economy by fostering the growth and development of a high-technology industry. Calgary's two research parks, one owned by the University and the other by the City of Calgary, help to stimulate the growth of the industry in the area.

Selected Critical Mass Areas In Canada

CITY	INSTITUTION	RESEARCH
Vancouver, British Columbia	University of British Columbia, British Columbia Institute of Technology, B.C. Research, Forintek, Pulp and Paper Research Institute of Canada	all forms of technical research from pulp and paper innovation to nuclear acceleration and brain scans
Calgary, Alberta	Calgary Chamber of Commerce, University of Calgary, City of Calgary, Honeywell, Digital, Alta-Can Telecom Inc.	industrial innovation and development, e.g. seismic technology
Toronto, Ontario	Ryerson Polytechnical Institute, Northern Telecom, IBM, Hewlett Packard, University of Toronto, Bell Canada, Bell-Northern Research, Spar Aero-space, Esso Research, Sheridan Park Research Centre, Ontario Research Foundation, Xerox Canada, Gulf Canada, Inco, Canadian Industries Ltd.,	advanced technology education for businesses, ranging from the use of robotics to the application of lasers and fibre optics, integrated circuit design, software development for flexible manufacturing systems, robotics, research on digital switching systems, metal fatigue research and environmental R&D
Kitchener-Waterloo, Ontario	University of Waterloo, Hewlett Packard, IBM and Digital Equipment	advanced technical research in most forms of industry at the Research Industrial Park
Ottawa, Ontario	Bell-Northern Research, Northern Telecom, Gandalf, Cognos, Mitel, Carleton University, University of Ottawa, the National Research Council and other federal government laboratories	telecommunications, micro-electronics
Montreal, Quebec	National Research Council, Xerox, Labatts, McGill University, Domtar, SNC, Zenon, Lavelin, Alcan, Université de Montréal	biochemical and genetic engineering, molecular immunology, cell fusion, sectoral research

5.4 Technical Infrastructure

Inherent in the concept of critical mass is a technical infrastructure which is specifically oriented towards high-tech companies. Technical infrastructure must, itself, be at the cutting edge of technology; otherwise, the companies it supports would be severely disadvantaged. Canadian high-tech companies have access to one of the world's best telecommunication systems, and it is getting even better. Canadian communication satellites are among the world's most reliable and consistent in orbit. Microwave networks span Canada from coast to coast, and research and production is well underway into the establishment of a fibre-optic communication system, which is capable of moving significantly more data than conventional wired systems, and which is imperative in these days of high-speed computer-based communications.

6. UNIVERSITY LINKS

6.1 Research Capability

A wide variety of research is being carried on in university institutes and laboratories throughout Canada. Part of this program is sponsored by industry, part by government, and part by the universities themselves. In the process, each school has built up a collection of expertise in its chosen fields. The federal government's Natural Sciences and Engineering Research Council produces an annual directory of university research. Several guides to the Canadian university system also exist, the most useful being a 300 page directory of Canadian Universities and Colleges produced by the Canadian Association of Colleges and Universities, (151 Slater Street, Ottawa, Ontario K1P 5N1) and sold for a small cost. Canadian Research is also a useful source for current research being undertaken and newly developed research capabilities.

6.2 The Natural Sciences and Engineering Research Council of Canada

The Government of Canada supports science and engineering in Canadian universities through its program of 'Scholarships and Grants in Aid of Research' administered through the Natural Sciences and Engineering Research Council (NSERC). As well as furthering scientific advance through research support, NSERC aims to ensure the provision of highly qualified manpower in the Canadian economy. Expenditures for 1984-85 were estimated at over 300 million dollars, the majority of which were spent supporting individual and project grants. This represents the major source of funding for pure and applied discipline research in Canadian universities. A significant amount (representing 10 percent of the total dollars spent) was distributed in the form of "Strategic Grants" which are designed to initiate and accelerate work in areas deemed to be of national concern. Current fields in this category are; biotechnology, communication, industrial materials and processes, computers, energy, environmental toxicology, food agriculture and oceans (see table 40 below). Besides direct research, NSERC also supports universities and research and development efforts through Research Infrastructure Support, University-Industry Program, Development Grants, General Research Support, and Research Manpower Awards (Scholarships).

TABLE 40

NUMBER AND AMOUNT OF NSERC STRATEGIC GRANTS 1984-85

	Individual Grants		Group Grants		Equipment Grants		Conference Grants		Total	
		$000		$000		$000		$000		$000
Energy	35	1,592	38	2,856	11	405			84	4,853
Environmental Toxicology	23	1,001	28	1,633	4	98	1	10	56	2,742
Oceans	16	784	25	1,884	6	290			47	2,959
Communications and Computers	16	936	37	3,706	8	657			61	5,299
Food/ Agriculture	35	1,378	52	3,149	13	331	1	9	101	4867
Open	16	637	28	1,970	6	288			50	2,896
Biotechnology	19	951	43	2,452	6	162			68	3,566
Industrial Materials and Processes	27	1,066	42	3,128	10	877	—	—	79	5,071
TOTAL	187	8,346	293	20,779	64	3,110	2	19	546	32,254

Source: NSERC, Appendix to the Report to the President, 1984-85.

Due to NSERC's financial support, a high standard of research facilities and manpower is maintained in Canadian universitities. Special funds are earmarked for smaller and isolated universities, and for research programs related to Canada's interests in the north and with the forest industries.

A major expansion of the Research Council's initiatives at the university-industry interface is the University-Industry Program which consists of four major components: Cooperative R&D Activities, Scholarships and Fellowships, University-Industry Links, and the Canadian Microelectronics Corporation.

Cooperative R&D projects seek to capitalize on new scientific and technological advances made by university researchers which are of signficance to a company and close to commercialization. R&D support also allows a company or group of companies to draw on the expertise of a university researcher or group. Support is directed to shared equipment and facilities used jointly by the university and industrial sectors. Industrial Research Chairs and Senior Industrial Fellowships are intended to encourage a mutually stimulative and productive interchange between universities and industry.

6.2.1. University-Industry Affiliations

NSERC's University-Industry Affiliation activities are designed to increase communication between the two sectors by providing financial assistance to universities for the establishment of mechanisms whereby R&D services can be provided to affiliated companies in return for a reasonable membership fee. The programs include companies of all sizes, in diverse fields, and seeks to assist researchers to refine their ideas and evaluate their commercial potential. Most projects also include an element of technology transfer. Typical companies involved are those in geophysics, materials manufacturing such as metals, ceramics and polymers, biotechnology and microelectronics.

Table 41 displays the disbursement of funds under NSERC's University-Industry program in 1984-85, excluding scholarships and fellowships.

TABLE 41

NSERC UNIVERSITY-INDUSTRY PROGRAM IN 1984-85

Type	Applications Number	Applications $000	Awards Number	Awards $000 NSERC	Awards $000 Industry
Cooperative R&D Projects	109	25,724	87	7,355	3,699
Shared Equipment & Facilities	17	5,411	9	1,064	437
Industrial Research Chairs	29	14,104	5	416	249
Affiliations	1	70	--	--	--
Workshops and Seminars	12	60	10	65	--
NSERC Visiting Fellowships	16	150	18	128	--
TOTAL	184	45,519	129	9,028	4,385

Source: NSERC, Appendix to the Report to the President, 1984-85.

In addition to the programs listed above, $5 million was also allocated to the Canadian Microelectronics Corporation. Disbursements for the University-Industry Program total 18.5 million dollars, approximately 6 percent of NSERC's total funding.

6.2.2 The Canadian Microelectronics Corporation

Under the auspices of the Natural Sciences and Engineering Research Council (NSERC), the federal government has begun to establish up to 30 university-based centres as a computer-linked nationwide network of design and testing stations for Very Large Scale Integrated Circuits.

When these centres are in place, they will permit the host universities to participate in a design network leading to the fabrication of prototype micro-electronic chips by Canadian manufacturers. These centres will provide computer-aided design workstations linked to a host computer at a coordination centre at Queen's University in Kingston, Ontario. The participating universities will then be able to offer specialized "hands-on" training to under-graduate and postgraduate students in computer science, electrical engineering and physics.

A similar but complementary network has also been set up by the Department of Regional Industrial Expansion. Since 1979, seven centres have been established at the Universities of British Columbia, Alberta, Manitoba, Toronto, Sherbrooke, Moncton and Dalhousie. These centres are funded by the federal government for up to seven years. Their objective is to encourage regional capabilities in the application of micro-electronics to industrial processes and products.

Some provincial governments, including Ontario, British Columbia and New Brunswick, are also in the process of establishing micro-electronics centres to fulfill the specialized needs of industries within their respective provinces.

6.3 University CAD/CAM Centres

A number of universities have established CAD/CAM centres to aid industry in product design. The basis of CAD/CAM systems is a high-powered computer capable of generating sophisticated graphics, which allow the designer to build, on the screen, models of products, which can be tested within the system. The Canadian Institute of Metalworking (CIM) at McMaster University is one of Canada's leaders in CAD/CAM.

With a large staff of experts, and supported by the most modern equipment available, the CIM acts as a training school for upgrading industrial employees, conducts research for industry, assists in the selection of industrial machinery and tools, and prepares software for computer-controlled production machinery.

At the University of New Brunswick, the Manufacturing Technology Centre offers a full CAD/CAM service, including robotics and engineering analysis. It is a direct contractor with industry and has technology transfer as one of its prime goals. The Société de Microélectronique Industrielle de Sherbrooke, at the University of Sherbrooke, is a microelectronic centre with CAD capability, used primarily to design printed circuit boards, hybrid circuits and integrated circuits. Work is performed for the business community and consists of modifications to circuits and machinery, or the development of entirely new products.

The establishment of a CAD/CAM centre at the University of Windsor, Ontario in 1985 will support increased university-industry interaction and cooperation in Canada's fifth largest manufacturing area. Five corporate patrons contributed $900,000 in funds and equipment to the Centre. They were: Digital Equipment of Canada, Applicon Canada, Chrysler Canada, Valiant Machine and Tool, and General Motors of Canada. The CAD/CAM centre has dramatically improved the university's research facilities and will serve as a source for technology transfer to the local metal cutting and parts manufacturing industry. The vehicle for the transfer of computer aided technologies will be the "cooperative joint project" involving interaction among students, faculty and company personnel.

A CAD/CAM centre at Simon Fraser University, in the new Engineering Sciences faculty, brought CAD/CAM to the west coast. All research within the faculty is oriented towards applications, and close ties exist between faculty and industry. The Computer-Aided Design Centre at the Technical University of Nova Scotia includes in its range of services: the promotion of CAD/CAM applications, hands-on demonstration and instruction, pay-as-you-use service, R&D and information dissemination. This University offers credit courses in CAD/CAM and is a source of qualified, experienced personnel in the field.

6.4 University Research, Technology and Innovation Centres - Cooperative Programs and Diffusion

R&D, conducted within the framework of the university for pure research purposes, has low pay-back and diffusion factors. Until the last decade or so, the record of technology transfer in Canada was poor. To offset this, a large number of technology centres were established - a partial listing of which is attached as Appendix I. In addition to conducting research, technology centres act as an interface between the university and business communities, and a number of cooperative projects have been created as a result. These centres provide technical expertise and innovation assistance to business firms, including contract research. They are particularly well suited to address the needs of small and medium-sized firms which may not be able to sustain adequate levels of R&D expenditures. Some examples among the many varied undertakings: a joint venture between the University of Guelph and Allelix Inc. to improve canola crops; the creation of a company by L'Institut Armand-Frappier and Lavalin Corp. to preserve food by irradiation; and a cooperative effort between Gaz Metropolitain and Concordia University to develop uses for natural gas and new methods for applying gas to heating use.

The diffusion process has improved through the establishment by universities of industrial innovation centres. Funded in part by provincial governments, these centres assist inventors in marketing their inventions, establishing their own companies and developing entrepreneurial skills. For example, the British Columbia government has a special program to help inventors and researchers on university campuses become entrepreneurs by preparing business plans, helping with marketing and introducing innovators to investors. Ontario spent approximately $23 million in 1985, through the University Research Incentive Fund, in which the Province contributes $1 for each $2 invested by a private company in a joint venture with an Ontario university.

Canada's eight provincial research organizations (p.r.o.'s) sponsor and/or carry out activities concerned with research into products and systems which can best exploit the resources of the individual province and help companies with a need for advanced research. Section 7.4 describes these provincial research organizations in more detail.

The University of Waterloo offers an extensive program to foster research and aid in the diffusion of research results. Among the practices at the university: Waterloo allows its professors to retain ownership of their own inventions, even if developed on university time; the university has set up several bodies whose function is to transfer technology to the business community; it has an extensive student employment cooperative program which makes on-the-job training part of the curriculum (in 1982, 22 other schools offered the same type of program); it is developing an industrial R&D park on university property to bring business and university staff and students together; and the school has gone into business for itself selling computer software to industry and other institutions.

Other schools have already been in, or recently entered, the business world in a manner similar to Waterloo, including the University of Toronto, which has been in business since the 1920's. The University of Toronto's Innovations Foundation has as its mandate the transfer of university technology to industry. It takes an active part in companies producing such diverse products as published music, pharmaceuticals and crushed materials. Other schools, including the University of Alberta, University of British Columbia, Queen's University, University of Calgary, Memorial University and many more, have appointed permanent business liaison officers to link university activity in the research area to industry.

University faculty and equipment contribute to the operation of several industry-specific research institutes. While a listing of all types of university-affiliated R&D centres is included in Appendix I, detailed description of representative institutes follows below.

The Atlantic Industrial Research Institute is an incorporated self-financed institution. The Institute performs R&D on a fee-for-service basis in a number of areas, including ceramic materials, coatings (e.g., plasma spray and other techniques) and mechanical properties of wear (e.g., the breakdown of high-speed bearings). The Institute, which can draw on the faculty and facilities of the Technical University of Nova Scotia, also conducts tests of engineering materials, as well as preparing and analyzing mineral samples. In 1983, the Institute undertook 20 projects, requiring 20 person-years, for a total cost of $400,000.

The Canadian Centre for Advanced Instrumentation, a subsidiary of the Saskatchewan Research Council, was established in 1982. Its objectives are to improve the efficiency, effectiveness and quality of work in industry, government and education through the use of control and measurement instrumentation. The Centre has a range of activities which it provides on a contractual basis, including:

- design and development of innovative instrumentation;
- assembly and marketing of innovative instruments; and,
- maintenance and calibration of commercial instruments.

In the 1983 fiscal year, expenditures were $600,000, which supported 250 projects, requiring 10 person-years.

Le Centre de Développement Technologique is a non-profit industrial research institute established, in 1971 with the Ecole Polytechnique de Montréal. It provides R&D and testing services to industry and government agencies in the following areas: environment, transportation, energy, communications, design, materials and systems.

Total expenditures of the Centre are $2.5 million a year. The Centre has 251 projects, requiring six full-time personnel and professors, research associates and graduate students from the 10 engineering disciplines of the Ecole Polytechnique. This translates into a total of roughly 46 person-years.

The Canadian Institute of Metalworking, established at McMaster University, was originally founded as the Centre for Applied Research and Engineering Design in 1967. It provides services to industry in CAD/CAM. The Institute has offered the following services over the past year:

- computer-aided design, drafting and the generation of numerical control data to manufacture high accuracy aerospace, mould and die components and tooling;
- research, development and production of special purpose software and hardware to address industry requirements;
- field testing, calibration and reporting of machine tool accuracy and alignment using laser interferometry; and,
- training programs for industry using institute or similar equipment.

In 1983, 78 projects were carried out for a total expenditure of $800,000 and 19 person-years.

The Atlantic Coal Institute was created in 1980 as a private non-profit corporation with a mandate to promote the technology of coal and related products. The Institute conducts contract R&D for the energy industry in the areas of offshore resources, energy processing and fossil fuel technology. Currently, the Institute is developing a Fossil Fuel Resource Centre with reports and texts on coal and petroleum resources and extraction. During the latest completed fiscal year, 22 projects were undertaken, requiring six person-years and expenditures of $205,000.

The Centre for Ocean Engineering (Vancouver) is a division of B.C. Research, established in 1978 to improve the productivity and efficiency of the Canadian ocean industry by assisting architects and engineers in their naval construction plans. Essentially, the Centre is a ship model testing operation which performs contract R&D and testing for the private sector. It conducts resistance and effective horsepower tests, waste surveys, and sea keeping and flow visualization studies. Almost three person-years were needed during the latest completed year to carry out 19 projects. Total expenditures were $140,000.

The Canadian Institute of Fisheries (formerly the Fisheries Research and Technology Laboratory) was established in 1981 when the Department of Industry, Trade and Commerce declared the institution a centre of excellence and began partially funding it. The Institute operates under the Faculty of Engineering in the Technical University of Nova Scotia.

It is primarily engaged in contract R&D and the provision of technical services to answer the needs of small- and medium-sized firms in the fisheries industry. R&D is conducted in areas such as fisheries engineering, marine oils, protein and fish post-mortem biochemistry, process technology and agriculture. In addition, Institute staff teach graduate programs in Food Science and in Engineering. In 1983, total expenditures were $1.2 million, permitting the use of 43 person-years on 40 projects.

The Waterloo Centre for Process Development was established in 1978 as a semi-independent organization, operating in the Chemical Engineering Department of the University of Waterloo. The Centre conducts feasibility studies to identify opportunities which will improve existing processes. Training courses and seminars are available to enable individual companies to develop their own in-house expertise. The Centre also assists planning and execution of mission-oriented research contracts. Principal areas of expertise include:

- biochemical and food engineering;
- computer-aided process control, statistics and mathematical analysis;
- environmental and pollution control;
- electrochemical engineering;
- chemical kinetics, catalysis and reactor design; and,
- polymer service and engineering.

In 1983, 16 projects were undertaken, requiring $2 million and 33 person- years.

The Centre for Ocean Technology is a division of the Nova Scotia Research Foundation Corporation. With a staff of 16 professionals and technicians, it carries out a large number of projects for companies and government departments. The projects range from providing technical information and doing feasibility studies, to actually carrying out R&D for new products. The principal emphasis of the Centre is the development of ocean hardware.

The System Analysis, Control and Design Activity Centre was created in 1973. Housed in the Engineering Science Department of the University of Western Ontario, it is an independent, self-supporting body of the University, providing services to clients in the process industries, particularly those in the pulp and paper industry.

Computer programs for process simulation have been developed and are available through the Centre. Custom programs can be developed for clients if the available programs do not cover the areas of simulation or modelling required by the clients. A consulting service is also available to provide necessary technical and engineering information.

Eight contracts were signed in 1983, during which the Centre spent $600,000 on 120 projects. Fourteen person-years were used by the Centre.

In 1971, the Centre for Powder Metallurgy was instituted in the Ontario Research Foundation under the financial sponsorship of the Department of Industry, Trade and Commerce (now the Department of Regional Industrial Expansion).

Although the Centre has not received direct government funding since 1974, the powder metallurgy activities of ORF have continued in numerous ORF programs undertaken for many Canadian and U.S. companies. The powder metallurgy technology and facilities are augmented by the overall capabilities of ORF, and are available to clients on a fee-for-service basis.

7. GOVERNMENT - INDUSTRY INTERFACE

7.1 Science and Technology in Government

Total federal expenditures in the natural and human sciences were expected to be $2.9 billion in 1982-83, an increase of 13 percent over the preceding year. Nearly 20 percent of the government's expenditures were relevant to the human sciences, and the other 80 percent to the natural sciences. The major spenders were the National Research Council (NRC) and the Natural Sciences and Engineering Research Council, which together were allotted 20 percent of the total government science budget. This was followed by Energy, Mines and Resources, and Environment with approximately 9 percent each.

7.1.1 The Ministry of State for Science and Technology

The Ministry of State for Science and Technology, created in 1971, encourages the development and use of science and technology in support of national goals through the formulation and development of appropriate policies. Grants in aid of research, through MOSST'S Natural Sciences and Engineering Research Council, the Medical Research Council of the Department of Health and Welfare and the Social Sciences and Humanities Research Council of the Secretary of State's Department, are expressions of a policy for science that is aimed at generating and maintaining national research capability.

Policies are also needed for the use of science to help Canada achieve non-scientific aims using scientific tools. The maintenance of research laboratories by science-based government departments (such as Energy, Mines and Resources, National Health and Welfare, Agriculture and Environment) and the contracting-out policy are expressions of this aspect of science policy.

The integration of science into public policy formulation is a relatively new development and is the third element of science policy. In order to bring science into policy, the Government of Canada is recruiting both natural and social scientists into the federal public service at the policy-making level, and using consultative mechanisms to capture the advice of the natural scientific community.

7.1.2 The Science Council of Canada

The Science Council of Canada is a science policy research institute established to advise the federal government and the Canadian public on problems and opportunities in Canadian science and technology. The published results of research in key areas of national science and technology policy are directed throughout Canada to government, industry, academic policy makers, and increasingly to the public, through the mass media. The Council consists of up to 30 eminent individuals - mostly industrialists or academics - appointed by order in council, who meet four times yearly to plan, evaluate and approve the major outputs from the Council's research program. The projects are carried out by a staff located in Ottawa. Publications by the Science Council, to date, comprise policy reports, including Council positions on the impact of microtechnology on society and Canada's potential scientific and technological contribution to the food supply of developing countries. Background studies now number more than 50, including recent papers on Canadian involvement in both international science and world food aid, and the requirements of Canada's manufacturing sector. Upcoming major reports will focus on Canada's transportation systems and the interface between science and the legal process. Industrial policies, biotechnology and science education are the major projects currently under way.

7.1.3 The National Research Council

The National Research Council (NRC) is an independent research agency established by Parliament to promote scientific and engineering research in furthering Canadian development. Its activities include: basic and exploratory research in the natural sciences; research on long-term problems of national concern such as energy, food, transportation, building and construction; research in direct support of industrial innovation and development; research to provide technological support of social objectives; the development and management of major national facilities; and research and services related to standards. These activities are carried out through in-house research programs, both internally generated and in respose to requests from industry; through contracts with industry and universities; through financial contributions to indusrial research laboratories; and through a technical information service for Canadian industry. The Canada Institute for Scientific and Technical Information plays a key role in facilitating the use of scientific and technical information by the government and people of Canada.

In the area of energy, the NRC has responsibility for co-ordinating all federal R&D activities concerning renewable energy - solar, wind, biomass, hydraulic and geothermal. In addition, the NRC is responsible for research programs on energy conservation in buildings, energy conversion and storage, the development of energy-conserving heat pumps, fundamental studies of nuclear fusion, and a number of smaller sub-programs.

In November 1985, the NRC announced a multi-year plan (1986 through 1990) aimed at making it as much a part of the industrial community as it is of the scientific community.

The scope of NRC contributions to industry will be expanded to include efforts such as marketing studies for companies contemplating new products. The Council will establish a Technology Assessment Office to identify developing technologies and the opportunities for their application. The Council will also set up a Technology Coordination Centre to promote collaboration of the NRC, industries and universities.

To become more effective in its role of assisting Canadian industry, the National Research Council will implement a major internal restructuring. NRC research facilities will be concentrated into larger units which then will be able to focus more effort on a smaller number of activities. More staff exchanges will be encouraged, sending NRC scientists to private-sector facilities and bringing industry experts to NRC labs. The Technology Assessment Office will solicit and evaluate information from Canadian scientists and engineers who would be encouraged to increase their knowledge of technology in other nations. The Council's Industry Development Office will also post technology observers to foreign countries.

7.1.3.1 Industrial Research Assistance Program (IRAP)

National Research Council facilities will become more effective at the business of technology transfer under the new restructuring. The Industrial Research Assistance Program (IRAP) will continue to be a prominent source of support for technology transfer. Administered by the NRC, IRAP services aim at improving the performance of mainly small and medium sized enterprises, and promoting industrial growth, new jobs and greater productivity. IRAP also assists companies in new product development and in the modification of existing processes. The 1985/86 budget for the IRAP program is approximately $44 million. Two of IRAPs information services, the Field Advisory Service and the Technical Information Service, are discussed below.

7.2 Scientific and Technological Information

Sources of scientific and technological (S&T) information might be classified into two main groups and a number of subgroups. Libraries would form the first category, and could be sub-divided into sectors such as colleges and universities, the federal government, provincial governments, provincial research organizations, industrial R&D and technology institutes, and private corporations. The second main group would be S&T service centres. In most cases, these centres have libraries, but would also be considered to be in the second category when the non-library information aspect is predominant (e.g., provincial research organizations). This group could also be divided into centres at universities and colleges, federal government departments, provincial government departments, provincial research organizations, industrial R&D and technology institutes, and commercial S&T service establishments.

7.2.1 The Canada Institute for Scientific and Technical Information (CISTI)

The Canada Institute for Scientific and Technical Information (CISTI), a part of the National Research Council, provides a wide range of information services to government, industry and university, including access services to the world's published scientific literature and to computerized databases. Roughly 50 percent of the loans of books, conference proceedings, and photocopies of journal articles are provided to business firms, 30 percent to government organizations; and 20 percent to universities.

About 90 percent of all requests made to CISTI for information are now satisfied through one method or another. CISTI handled 381,983 document deliveries and conducted 320,000 database searches during 1983-84.

Over the past few years, new techniques have been developed to facilitate access to information at CISTI and at other co-operating institutes. For example, an on-line computerized system for search and retrieval of bibliographic references, CAN/OLE (Canadian On-Line Enquiry System), has been in operation since 1974. This system permits a client at a computer terminal anywhere in Canada to request a copy of documents contained in CISTI's current lists and data bases and to perform searches of the S&T literature for publications in all major fields of science and technology.

CISTI also operates the Canadian Scientific Dissemination of Information service (CAN/SDI), which provides individualized awareness services for scientists by regularly searching current bibliographic data bases. In addition, the Scientific Numeric Data Bases services (CAN/SND) provides on-line access to crystallographic and infrared spectra data acquired from various research organizations, and allows accessors to use computer programs to retrieve and perform calculations on the data.

7.2.2 The Field Advisory and Technical Information Services

Two components of the Industrial Research Assistance Program (IRAP) of the National Research Council, the Field Advisory Service and the Technical Information Service, provide information services to industry.

The Field Advisory Service has officers stationed in 25 locations across Canada. These officers are either NRC employees or designated employees of provincial research organizations partially supported by NRC. They provide information and guidance in industrial engineering methods and techniques to improve the effectiveness of company functions and production operations. They also assist companies to gain access to other types of assistance offered by the NRC and other federal departments.

The Technical Information Service, in existence for 35 years, is the central advisory service located in Ottawa. The service is staffed by a team of experienced scientists and engineers with expert knowledge of NRC and other federal departments and agencies. The service is utilized by small- and medium-sized businesses, with few or no technical library facilities, and by larger firms to keep their technical staff informed of the latest technological developments. This group and the Field Advisary Service receive between 20,000 and 25,000 enquiries annually from 15,000 to 20,000 firms.

7.2.3 Scientific Periodicals

The NRC also provides editorial and publishing services for 12 world-class scientific periodicals. The Canadian Journals of Research have been publishing the research results of Canadian and non-Canadian scientists since 1929. There are now 12 journals:

Canadian Journal of Botany
Canadian Journal of Zoology
Canadian Journal of Microbiology
Canadian Journal of Biochemistry and Cell Biology
Canadian Journal of Chemistry
Canadian Journal of Physics
Canadian Journal of Earth Sciences
Canadian Journal of Physiology and Pharmacology
Canadian Journal of Forest Research
Canadian Journal of Genetics and Cytology
Canadian Geotechnical Journal
Canadian Journal of Civil Engineering

7.2.4 Patent Office

The responsibility of the Patent Office of Consumer and Corporate Affairs is to acquire and disseminate technological information and to encourage invention and innovation in Canada. In addition to granting and maintaining patents, the Patent Office provides a number of services to fulfill its role in the dissemination of technological information. It publishes the Patent Office Record, a weekly report which provides information concerning Canadian patents issued during the week. A search room and library is maintained for use by the public, and an advisory service is available to provide technological information to those interested.

The Patent Office is currently in the process of implementing its new Patent Information Exploitation (PIE) program. Under this program, research organizations and research funding agencies will be offered patent information services specifically designed to help plan, guide, and enhance R&D activities. As well, new services will be made available to the business community - services which are intended to stimulate industrial innovation by ensuring that a wide range of recently patented technology, emanating from around the globe, is transferred rapidly to local industries. Furthermore under the PIE program, the Patent Office will, in response to specific requests by government departments, assess the current state of technology and forecast technological trends based upon information contained in patent documents.

7.3 Federal Laboratories

Canada's federal laboratories are justly proud of their long tradition of excellence and innovation. Government-sponsored agricultural research played a key role in the settlement of the Canadian West. Defence research during World War II and later, research into peacetime nuclear applications, helped establish Canada as an international scientific presence. The tradition continues today. In scores of large and small federal laboratories, some 6,000 scientists, assisted by 11,000 support personnel, are engaged in an astonishingly wide variety of pursuits.

Nearly all federal laboratory research bases either serves the needs of a government agency, or supports the goals of private industry. In the case of acid rain, for instance, government-sponsored research into causes and cures is virtually mandatory. There is a clearly-defined need for federally-sponsored agricultural research to support an industry with many individual producers. Nor could private industry in Canada accept the risks or afford the massive expenditures required to create a nuclear power industry. Similarly, many government departments exist, in the words of Stephen Berry of the University of Chicago, to perform "scientific and technical jobs that must be done to keep the nation functioning as we wish it, which no other institution is willing to do".

Agencies devoted to monitoring air and water pollution, pesticides and radiation levels, for instance, constitute a large and legitimate market for the output of federal laboratories.

7.3.1 Agricultural and Food Research

Over 50 percent of agricultural and food research in Canada is still conducted by Agriculture Canada, which employs approximately 900 scientists, at about 50 establishments located from coast to coast. Agriculture faculties at universities comprise the second major group. Private industry is increasingly contributing to research through federal incentive programs and contracts, and provincial departments are gradually funding a larger proportion of research or developing their own capacity for research.

Broad traditional areas of crop and animal production and protection, and soils, receive a large proportion of the research effort. But in recent years there has been increasing emphasis on food processing and energy use. In addition, agricultural scientists are involved in research directed at protection of the environment, and in activity conducted in collaboration with other agencies at the provincial, federal and international levels.

In crop research, plant breeding is a major activity that annually contributes new varieties offering such traits as higher yield, better quality, increased resistance to disease and insects, and earlier maturity.

At Winnipeg, the Grain Research Laboratory of the Canadian Grain Commission monitors and assesses the quality of cereal grains and oilseeds grown and marketed in Canada, and carries out research on grain quality.

In animal production, breeding projects are underway with sheep, swine, poultry and cattle, conducted mainly by Agriculture Canada. Feeding and management studies are also conducted to improve the efficiency of conversion of feed into meat, milk or eggs, and increase the economic returns to producers.

Interrelationships between nutrition and quality of animal products are receiving research attention. Flavour, lean-to-fat ratio in meats, egg shell strength, shelf-life of packaged products, and effects of processing are taken into account in current research, resulting in enhanced consumer acceptability of animal products.

Research on reproductive physiology is also being used to improve livestock productivity; potential areas for development have been identified and progress has been made toward controlling the physiological and environmental factors influencing reproductive efficiency in livestock.

Within Agriculture Canada, research on animal disease is conducted by the Animal Pathology Division of the Food Production and Inspection Branch, with support from scientists at Canada's three veterinary colleges. The research is aimed at improving present techniques and developing new ones for the accurate and rapid diagnosis of animal diseases, both foreign and indigenous, and for determining the safety and quality of meat and meat products.

Soil research is concerned with basic work on the physical characterization of soils and the methods to control land degradation. Land suitability studies are becoming important because of urban encroachment on prime agricultural land and the looming world food shortage. Methods of land evaluation have been developed which utilize computer-assisted techniques to determine the relative value of different land areas to meet alternative national production goals.

Concern for environmental quality is a new thrust in agricultural research. Scientists are monitoring rivers, streams and lakes for contamination by soil nutrients, animal and industrial wastes, and pesticide chemicals. Food products are carefully checked for freedom from chemical residues. Analytical methodology to permit this monitoring is continually under development.

Research in the area of economics in agriculture is aimed at identifying the economic problems of the industry and formulating programs and policies to solve them. Studies of farm management resource use, farm income, market structure and agricultural productivity are carried out to assess the effect on agriculture and the economy of such changing conditions as prices, trade and technical developments. Economic models have been established to evaluate specific programs and policies for grains, oilseeds, cattle, hogs and dairy products. Farm management planning models have been developed for all regions and types of farms in Canada.

7.3.2 Environmental Research

The Environmental Conservation Service (ECS) is concerned with the wise and careful use of the country's wildlife, water and lands, and with promoting the economic potential of renewable resource management and development. The organization consists of three regionalized directorates (Inland Waters, Canadian Wildlife and Lands) responsible for ECS efforts in each resource area. A fourth directorate, Policy and Program Development, is responsible for service-wide planning and policy development, and for several national programs which involve input from more than one of the three resource areas. ECS makes major contributions to the research and monitoring of toxic substances, developing coastal zone management plans with the provinces, providing baseline information related to major energy developments, and to the effects of acid rain on aquatic and terrestrial environments and wildlife.

The Canadian Forestry Service (CFS), recently brought under the authority of the Ministry of State for Forestry and Agriculture, conducts programs on the management and conservation of the forestry resource and acts as the lead federal agency in forestry. In addition to its headquarters, which emphasizes policy and economics work, CFS has two national institutes and six forest research centres responding to regional opportunities and national goals. Current research priorities at CFS comprise forest regeneration, including tree breeding; national forestry data compilation and analysis; combating the spruce budworm; studying techniques to obtain energy from the forest; toxic substances research, in particular chemical insecticides; research in long-range transport of air-borne pollutants; and the development of biological control of forest pests. Application of research is stressed, as is the environmental impact of forestry practices. Other CFS work involves programs with the Department of Employment and Immigration, DRIE, and provincial agencies, to establish practices for intensive forest management.

The Canadian Wildlife Service (CWS) conducts programs to manage and protect migratory birds and their habitats, both domestically and internationally. Increasing economic development activities which threaten habitat, and growing public interest in wildlife, provide challenges in carrying out federal responsibilities for migratory birds. CWS surveys and regulates waterfowl hunting in Canada and works to conserve "non-game" bird populations such as seabirds on the Atlantic and Pacific coasts; conducts joint studies of shorebirds with Latin American countries; inventories and researches the great blue heron and double-crested cormorant in Quebec; studies the impact of acid rain on wildlife in Eastern Canada; and works to develop a waterfowl management plan for Canada. To protect migratory bird habitats, over 39 national wildlife areas and 82 migratory bird sanctuaries have been established across Canada and more are being considered.

CWS also conducts research on other wildlife of national interest, conserves critical wildlife habitat, and assists the provinces and territories with their wildlife conservation efforts. Areas of interests are: identification and protection of rare and endangered species; international trade of endangered species; wildlife on federal lands (national parks); and the health of wildlife, with a focus on the impact of toxic substances. Some recent projects are: the reintroduction of the peregrine falcon in Eastern Canada; effects of forest management practices on wildlife; studies on wolf-bison interactions in national parks in Western Canada; rehabitation of the whooping crane population; and co-operative research on the caribou herds in the North, with negotiation toward agreements for the management of caribou.

CWS operates five wildlife interpretation centres, located across Canada, where visitors can get a closer look at their natural environment.

The Inland Waters Directorate's (IWD) research program is carried out mainly at the National Water Research Institute at Burlington, Ontario, and at the National Hydrology Research Institute in the National Capital Region. There are also small research groups at Winnipeg, Calgary and Vancouver.

Water quality research provides a basis for setting water quality objectives and is directed toward measures for the management of Canada's aquatic environment. Specific projects include the pathways by which toxic contaminants move, changes in the ecology wrought by human activity (for example, acid rain), the understanding of the mechanisms leading to these changes, and the role of sediments in regulating water quality. Water quality research requires understanding and quantification of processes in the fields of surface water, snow and ice hydrology, sediment transport and hydrogeology.

IWD has developed flow prediction models that can be manipulated to receive and test new insights into hydrological processes such as evapotranspiration, snowmelt and glacier melt, soil moisture, and the mechanics of groundwater movement. Research is underway on the hydrology of northern environments and the effects upon it of human activities such as: pipeline and highway construction; the role of glaciers as a natural and viable water storage system; and hydrogeological processes controlling the movement of subsurface contaminants from sources such as landfill, road salts and radioactive wastes.

The Lands Directorate has a lead role in providing advice to the federal government on land-use policy in Canada. Studies of land problems and issues are being conducted by the Directorate. The influence of federal programs on land use and the impact of policies, land-planning programs, and regulations are also being analyzed. The Directorate represents Environment Canada on the Treasury Board's advisory committee on federal land management.

Ecological characteristics, resource potential, and the actual use of land in Canada are researched. Projects include: the Canada land inventory; the Canada land use monitoring program; and the northern land use information mapping project.

The Directorate conducts research into major national and regional land problems to inform the public and decision makers of their causes, solutions and importance to the nation. Programs to analyze the loss of agricultural land, the preservation of special resource lands and the federal role in land-use problems and solutions are undertaken. The Directorate also provides land-planning assistance to the environmental assessment and review process, and to specific jurisdictions in solving land problems.

A computerized land data bank, the Canada land data system, is maintained by the Directorate. It stores, processes and retrieves social, economic and environmental land data at national, provincial, regional and municipal levels.

The Atmospheric Environment Service (AES) is concerned primarily with meteorology, the science of the atmosphere. It provides national weather and climatological services for governments, the public and special users. It is responsible for ice services supporting navigation in Canadian waterways, coastal waters and the Arctic Archipelago. It is also involved in meteorological and climate research, and research on effects of atmospheric pollutants and instrument design. AES maintains 68 weather offices and many smaller service outlets across Canada.

Climatic variability and trends seriously affect production of food and energy and the availability of water and other environmental factors of importance to Canadians. A Canadian climate program is being developed to hasten the production of climate predictions and to provide information about the consequences of increasing carbon dioxide in the atmosphere. Improved methods of providing climate data and information to users, and of applying climate data to the needs of agriculture, industry and transportation, are being developed.

Research focuses on atmospheric pollutants which lead to potentially harmful effects of human, animal and plant life. The dispersive and chemical properties of toxic substances in the atmosphere near the ground, are studied, as well as others such as freons, which affect the stratosphere, especially the ozone layer. Important stratospheric constituents are monitored by AES and behaviour models are developed.

A comprehensive system for environmental prediction is being further developed to support many activities going on in the Arctic, especially oil drilling in the Beaufort Sea and coastal areas. New techniques of data assimilation and numerical prediction are applied, and more are under development at the Canadian Meteorological Centre. Advanced computer methods for processing satellite data are yielding very high-quality photographs of weather systems for use at Canada's main weather centres.

The Environmental Protection Service (EPS) deals with air and water pollution control; toxic chemicals management; environmental protection functions related to environmental contaminants, environmental emergencies and waste management; and policy, planning and assessment initiatives. It also acts as a focal point on environmental protection matters with industry, corresponding provincial agencies and the public.

The Water Pollution Control Directorate promotes and undertakes programs to achieve a level of water quality suitable for the protection of human health, suitable for the protection of fish, and capable of supporting a maximum diversity of water uses. The strategy is to limit the discharge of pollutants at their source. The Directorate is emphasizing the identification, characterization and assessment of waste water effluents to control toxic chemicals.

Specific activities include: Ocean Dumping Control Act administration; phosphorus control in detergents, through regulations under the Canada Water Act; a joint program with the Water Pollution Control Federation on sewage plant operator training; pollution control under the authority of the Fisheries Act for the protection of fish in coastal areas; and technology development, demonstration and transfer in support of Directorate activities, as well as maintaining a focal point for waste water treatment and sludge disposal.

Under the Fisheries Act, the emphasis is placed on developing site-specific controls to suit local needs. The waste water technology centre at Burlington, Ontario, plays a key role in the design of new or improved waste water treatment processes, in the development of new Canadian technology and equipment, and in the adaptation of proven foreign technological developments in order to solve Canadian pollution control problems.

The Air Pollution Control Directorate operates a national program designed to contain pollutants at their source, through application of control technology combined with the management of air as a resource. The program addresses four major issues: long-range transport of air pollution (acid rain), toxic chemicals in the atmosphere, oxidants, and energy and the environment. Major activities are: implementation of regulations under the Clear Air Act; the national air pollution surveillance network, which collects air quality data from more than 150 centres for trend analysis, problem identification and program evaluation; development of industry sector guidelines recommending emission limits for air contaminants from various stationary sources and from in-use vehicles; and testing of new cars for compliance with emission standards, as well as testing of lead-free and leaded gasoline for compliance with lead limits.

The Environmental Impact Control Directorate guides national programs in contaminants control, environmental emergencies and waste management. It also ensures that environment protection measures are carried out for all activities initiated by, funded by, or under the jurisdiction of, the federal government.

A contaminants control program evaluates chemicals - those already in use and those not yet introduced - to determine whether their use will harm human health or the environment. Specific uses of these chemicals may be restricted or banned under the Environmental Contaminants Act. The program is also responsible for review of pest control programs and pesticides to be registered under the Department of Agriculture's Pest Control Products Act, and for advising the Department of Transport concerning the development of codes for the safe transportation of dangerous goods.

The environmental emergencies program proposes measures to prevent spills of oil and other hazardous substances, and develops contingency plans and technology for clean-up. It maintains the national alerting and reporting network to measure fast response to environmental emergencies.

The waste management program is developing a national program for the transportation and disposal of hazardous and non-hazardous wastes in cooperation with the provinces, industry and the public. Emphasis is placed on an energy, and resource recovery program from waste.

The toxic chemicals management program is concerned with preventing or limiting environmental and health risks associated with the release of toxic chemicals. A toxic chemicals management centre was established in June 1980, to set priorities in the areas of environmental measurements, inventory, research and assessment of chemicals; and to develop plans of action for remedial measures.

The Policy, Planning and Assessment Directorate is responsible for socio-economic analyses, federal activities assessment, and program and policy planning. Socio-economic impact analyses are required for major federal regulations. The Directorate must ensure that any EPS regulation is of net benefit to Canadian society, after all social and economic factors are weighed. The federal activities assessment program promotes and co-ordinates the development and implementation of environmental protection measures in such areas as federal facilities, offshore oil and gas exploration and development, marine transportaton, pipelines, linear facilities (highways, transmission lines and railways), mines, ports and harbours, and facilities located in coastal zones. The program's nuclear division is involved in issues concerning radioactive waste disposal, preparation of inputs to inquiries and royal commissions, provision of scientific and technical advice, and co-ordination of activities related to radiation protection.

7.3.3 Energy, Mines and Resources Research

The Department of Energy, Mines and Resources is the principal component of the federal government responsible for policy formulation and research in the fields of energy and mineral resources. Associated with these activities are surveys and mapping, remote sensing of Canadian lands and waters from aircraft and satellites, and efforts to safeguard the environment and the health and safety of Canadians in mining and related work.

This work is carried out in four sectors: Energy Policy, Mineral Policy, Research and Technology, and Earth Science. The first two sectors are concerned mainly with studies, analyses and policy recommendations in their respective fields. The other two sectors, with some branches established many decades ago, are concerned primarily with scientific and technical research, and with surveys and mapping.

The Mineral Policy Sector, through policy development and co-ordination, works with provincial governments and industry to assist Canadian mineral producers and processors in adjusting to changing world economic conditions. The sector's analysis of policy covers such areas as international markets; the domestic investment climate; the status of particular groups within the industry, such as junior mining companies; employment; and the quality of working life. It must also be conscious of such factors as mineral research, taxation, environmental controls, the security of Canadian mineral supplies, and the needs of those processing minerals beyond the crude state. Of particular interest is the economic linkage to resource development that can foster such spin-off benefits as mine machinery manufacturing. The sector continually seeks policies that will contribute to the discovery and development of mineral deposits and to job creation. This sector carried out a review of Canadian mineral policy to define opportunities and constraints for the mineral industry in the next few years. The review was released for public discussion early in 1982.

The Research and Technology Sector of the Department comprises the following branches: the Canada Centre for Mineral and Energy Technology (CANMET), the Canada Centre for Remote Sensing, the Explosives Branch and the Office of Energy Research and Development. The Earth Sciences Sector comprises the following branches: the Geological Survey of Canada, the Earth Physics Branch, the Surveys and Mapping Branch, and the Polar Continental Shelf Project.

CANMET's studies in mineral and energy technology are carried out at a number of laboratories in the Ottawa area and at Elliot Lake, Ontario, Calgary and Edmonton, Alberta, and Sydney, Nova Scotia. This work, which includes basic and applied research, development, demonstration and transfer of proved technology to industry, is aimed towards safer, cleaner and more efficient extraction, processing and use of the country's mineral resources. In recent years, coal, oil sands and heavy oils have received special attention. A patented CANMET process for upgrading heavy oil went into commercial use in 1984, and progress has been made in studies on the fluidized-bed combustion of coal, and on coal gasification and liquefaction. Current emphasis on mining health and safety includes a number of projects aimed at reducing hazards to mine workers from dust, radiation, diesel exhaust fumes, noise and vibration. The Centre is also developing new methods of determining ground stress conditions and mine stability. In its processing and utilization research, CANMET works to develop new and improved methods of extracting minerals from ores, and to improve the physical properties of metals and other materials derived from these minerals.

The Canada Centre for Remote Sensing is responsible for developing and demonstrating systems, methods and instruments for acquiring, analyzing and disseminating remote sensing data obtained by aircraft and satellite; and contributing to the development of effective resource management, and information systems relating to Canada's terrain and oceans. Applications include agriculture, forestry, geology, oceanography, engineering, water resource management and ice reconnaissance. Under the guidance of the federal government's Inter-Agency Committee on Remote Sensing (IACRS), the Centre serves federal and provincial government departments and agencies, regional organizations, industry, universities and the general public. In addition, through the Canadian Advisory Committee on Remote Sensing, the Centre coordinates remote sensing activities on a national scale. Another function of the Canada Centre for Remote Sensing is to foster international cooperation in the peaceful use of space technology.

In the interests of public safety, the Explosives Branch controls the authorization, manufacture, importation, sale, purchase, possession and storage of explosives in Canada, and the transportation of explosives on land by other than public railway.

The primary objective of the Office of Energy Research and Development is to provide coordination and to stimulate improved management of all federal energy research and development.

The dominant concern of the Geological Survey has been the assessment of energy and mineral resources. Scientific studies have been formulated in the light of that concern. Field work is being carried out in most regions, with emphasis on the North and offshore areas. In addition to studies aimed at a better understanding of the history and composition of the earth's crust underlying Canada, geologists have undertaken assessments of Canada's oil and gas potential in which cost considerations are an integral part. Rocks of late Precambrian age are important in the search for metallic minerals, and a major report has been released describing these rocks in Canada. Mineral assessments have been made of large areas of Northern Canada, particularly those proposed for national parks. The work of the branch has been used in preparing the latest estimates of Canada's conventional oil and gas reserves and resources. The future of the earth sciences depends on new recruits. The results of a study made by the Canadian Geoscience Council on the teaching of geology and geophysics have been published.

The scientists of the Earth Physics Branch carry out research into the seismic, geothermal, geomagnetic, gravity and geodynamic characteristics of the Canadian land mass and offshore areas. Monitoring of earthquake activity and of longer-term tectonic motions is continuously carried out, as in the monitoring of the geomagnetic field. A seismic risk map of Canada is published as required, a revised gravity map of Canada is produced at 10-year intervals, and a chart showing the declination and rate of change of the magnetic field is produced at 5-year intervals.

The characteristics, distribution and depth of permafrost in the Arctic are studied, as are related hazards in transportation and drilling. Multidisciplinary surveys and studies of the structure of the deep earth are carried out, both on and offshore, to enhance the understanding of the evolution, configuration and composition of the earth. Studies are being carried out in British Columbia, Alberta, Saskatchewan and the Maritimes to determine the geothermal energy potential in these areas.

The Surveys and Mapping Branch compiles, prints and distributes topographical maps, aeronautical charts, specialized maps such as electoral and boundary maps, and general maps. It establishes and maintains the basic geodetic control survey networks, manages and regulates the boundary and property surveys of Canada Lands, and collaborates with the United States in the maintenance of the international boundary. It produces gazetteers and the National Atlas.

The Polar Continental Shelf Project provides logistic communications and accommodation support to research and surveys in the high Arctic. The emphasis has been on testing the probable response of the Arctic environment and ecology to industrial activity, such as oil exploration and pipeline construction.

7.3.4 Medical and Health Research

Biomedical research in Canada is carried out primarily in laboratories, located in the universities and their affiliated hospitals. The federal government provides a major part of the financial support for the direct operating costs of this research through a variety of support mechansims for investigators. The Medical Research Council of Canada, which provides support for research projects in the basic, applied, and clinical health sciences, as well as clinical trials for the assessment and validation of diagnostic and treatment procedures, has the following programs available to assist research: grants-in-aid, major equipment grants, special program grants, development grants, subject research development grants, program grants, groups, fellowships and centennial fellowships, investigator's salary support, studentships, summer scholars, visiting professors, visiting scientists, career investigator awards, scholarships, training grants, research professorships, symposia, travel grants and a president's fund.

Other investigators in the health sciences are either supported by another major federal government agency, the national health research and development program of the Department of National Health and Welfare, or by voluntary agencies, such as the National Cancer Institute of Canada, the Heart Foundations, and the Arthritis Society, or by the growing involvement of the provincial governments in health research and health care delivery. The private sector is also involved, especially in the area of pharmaceuticals.

7.3.5 Northern Research

Canada has long recognized the contribution research makes to the socio-economic development of the North. Moreover, the Canadian North has some unique characteristics that are of particular interest to the scientific community.

Because of this, the Department of Indian and Northern Affairs has designed certain long-term measures to encourage and support northern research. The training of graduate students is assisted by special grants administered by the Department. In addition, under its Northern Science Resource Centres program, the Department operates the Western Arctic Science Resource Centre at Inuvik, and the Eastern Arctic Science Resource Centre at Igloolik, to accommodate scientists from government, universities and industry. Plans are being made to establish a Science Institute in the North which would respond more fully to the needs of northerners.

These measures do not, however, meet the need for research to support development programs or to obtain specific information required to support the regulatory and administrative responsibilities of the Department. For these purposes, substantial programs of applied problem-oriented research have been organized, such as: the Arctic Land Use Research program; the environmental-social program; the Eastern Arctic Marine Environmental Studies (EAMES) program; the northern pipelines program; the Beaufort Sea project; oil-spill studies; waste disposal studies; and regional socio-economic studies. The Department of Indian and Northern Affairs is also participating in interdepartmental programs such as the Baffin Island Oil Spill (BIOS) and a series of mining studies.

7.3.6 Fish and Ocean Research

The Department of Fisheries and Oceans has an extensive network of research establishments and laboratories throughout Canada. These laboratories specialize in all types of marine science ranging from studies on fish species to oceanography. In particular, the Pacific Biological Station at Nanaimo, British Columbia, studies Pacific salmon species, and other West Coast species of fish and shellfish. The Institute of Ocean Sciences, also in British Columbia, is the centre for oceanographic and hydrographic research on the West Coast and western Arctic. The Freshwater Institute, located at Winnipeg, Manitoba, specializes in freshwater species. The Arctic Biological Station, at Ste. Anne de Bellevue, Quebec, is a research centre specializing in marine mammal studies. The St. Andrews Biological Station in St. Andrews, New Brunswick, studies lobster, Atlantic salmon and other East Coast species. Finally, the Bedford Institute of Oceanography at Dartmouth, Nova Scotia is the centre for oceanographic and hydrographic research on the Atlantic Coast and in the eastern Arctic. The Northwest Atlantic Fisheries Centre at St. John's, Newfoundland is the research centre for Atlantic fish species.

7.3.7 Communications Research

The Department of Communications and its Communications Research Centre, located at Shirley's Bay, Ontario, is equipped with several laboratories dealing with the research and development of new communications systems, radar and telecommunications/ fibreoptics, microwave and satellite communications systems, and other space technology.

7.4. The Provincial Research Organizations (PRO's)

Eight provinces have established provincial research organizations. These are:

Nova Scotia Research Foundation Corporation (NSRFC)
New Brunswick Research and Productivity Council (NBRPC)
Centre de recherche industrielle du Québec (CRIQ)
Ontario Research Foundation (ORF)
Manitoba Research Council (MRC)
Saskatchewan Research Council (SRC)
Alberta Research Council (ARC)
British Columbia Research (BCR)

Although the PROs were created under a variety of different circumstances, at different times and with varying mandates, they have two common objectives: to carry out research and development activities of particular significance to the province, and to provide technological assistance to primary and secondary industries. PRO's generated 4 percent of total R&D expenditures in 1984, but play a major role in the transfer of technology from laboratory to production unit, acting as an interface between science and business.

Expenditures outlined in Table 42 indicate that Alberta Institutes comprise approximately one-third of total PRO funding in Canada, followed by Ontario and Quebec, each at roughly one-fifth of total expenditures. Table 43 demonstrates that provincial governments are the major benefactors of PRO's, providing 38 percent of direct funding in 1984. That year, Canadian business sources accounted for 20 percent of PRO funding.

TABLE 42

CURRENT EXPENDITURES, BY SCIENTIFIC ACTIVITY BY PROVINCIAL RESEARCH ORGANIZATIONS, 1984

Institute	Scientific Research	Development	Resource Surveys	Analysis & Testing	Industrial Engineering	Other (1)	Total
			$000				
Nova Scotia	766	2,003	530	707	353	1,532	5,891
New Brunswick	966	751	--	1,717	858	1,074	5,366
Québec	2,508	6,784	--	3,991	380	5,340	19,003
Ontario	4,337	8,674	--	7,373	217	1,085	21,686
Manitoba	48	2,073	--	--	397	2,259	4,777
Saskatchewan	2,663	856	1,142	1,142	2,188	1,522	9,513
Alberta	5,300	17,668	3,534	2,120	1,413	5,301	35,336
British Columbia	3,404	178	--	770	252	3,619	8,223
TOTAL, CANADA	19,992	38,987	5,206	17,820	6,058	21,732	109,705

(1) Feasibility studies $4,550; library and technical information $9,275; industrial innovation, $7,449; and other $458 thousand.

Source: Statistics Canada, Science Statistics Service Bulletin, December, 1985.

TABLE 43

SOURCES OF FUNDS, PROVINCIAL RESEARCH ORGANIZATIONS, 1980-1984

Source and Type of Funds	1980	1981	1982	1983	1984
PROVINCIAL GOVERNMENTS					
Subsidies and Grants	44%	36%	43%	44%	38%
Contracts	16%	19%	20%	19%	22%
FEDERAL GOVERNMENT					
Subsidies and Grants	--	--	--	--	--
Contracts	7%	8%	9%	12%	14%
Canadian Industry Contracts	24%	24%	21%	20%	20%
Other Canadian Sources	6%	10%	5%	3%	4%
Foreign Contracts	3%	3%	2%	2%	2%
TOTAL	100%	100%	100%	100%	100%

Source: Statistics Canada, Science Statistics Service Bulletin, December 1985.

In order to fulfill the need for technology transfer and provide a science and business interface, the PROs provide three types of services:

- free industrial engineering, technical information and advice to small- and medium-sized enterprises;
- fee-for-service R&D, feasibility studies, market surveys, analysis and testing of products and processes; and,
- exploratory R&D directed towards provincial industrial development.

The extent to which a provincial organization engages in one type of activity over another, the exact nature of the activities, the fields in which they are involved, and even their funding sources, vary considerably from institution to institution. For example, the Textile and Clothing Technology Centre established by ORF has conducted product research testing and evaluation for the textile industry for over 50 years. BCR receives funding from the B.C. Government to perform R&D on coal liquefaction and fluidized bed combustion. NSRFC operates a Centre for Ocean Technology. ARC, together with the Alberta Oil Sands Technology and Research Authority, operates an Oil Sands Information Centre.

8. QUALITY OF LIFE AND HIGH TECHNOLOGY WORK FORCE

Studies suggest that the high-tech work force is well-educated, generally younger than average, physically fit, and works at a very intense intellectual and physical level. Leisure time is thus at a premium and extra-curricular pursuits are generally geared to counter the demanding working environment. High tech companies, taking these factors into account, have attempted to locate in quieter, more rustic surroundings, with housing accommodations of all types and price ranges; and within close proximity to tranquil and enthusiastic recreation, both outdoor and indoor, such as hiking, skiing, fishing, boating, racquet sports, etc. Proximity to peers and universities and technical colleges is important as a means of both upgrading qualifications and exchanging ideas. Communities in which the critical mass has already formed display these characteristics. There are numerous such locations in Canada.

8.1 Standard of Living

Canada's overall standard of living ranks among the highest in the world. In terms of wealth, measured by GDP per capita, Canada, in 1983, ranked fourth, behind only Switzerland, Norway and the U.S. With a population of only 25 million, Canada's gross domestic product ranked seventh in the world in size, ahead of many, more populous countries. Canadians are a mobile people. With fair distances between major centres, 82 percent of Canadian households own automobiles, vans or trucks. This compares to 90 percent of U.S. households. Other western industrial countries such as Japan, France, Germany, and the U.K. have household vehicle ownership rates of between 60 percent and 70 percent. Canada ranks very high, if not at the top, in the percentage of households owning other durable goods such as refrigerators (99 percent), washing machines (77 percent), telephones (98 percent), televisions (98 percent), radios (99 percent), and video tape recorders (23.4 percent).*

8.2 Health

National health insurance plans (national in scope, but administered individually by the provinces and territories) ensure that Canadians are afforded the most up-to-date medical services at affordable premiums. In addition, massive awareness campaigns are being conducted by federal and provincial governments to discourage careless driving, to discourage drug, alcohol and tobacco abuse, and to promote a healthier lifestyle through exercise, physical fitness and nutrition.

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* Statistics Canada, Household Facilities and Equipment, May 1985.
From 1970 to 1982, prices in Canada rose by 270 percent. By comparison, prices increased by 437 percent in the U.K., and 319 percent in France, 255 percent in Japan and 248 percent in the U.S. Food prices rose by 315 percent in Canada compared to 463 percent in the U.K., 362 percent in France, 251 percent in Japan and 253 percent in the U.S., from where most of Canadian food imports originate.

8.3 Housing

Canada has a population density of about 2.7 persons per square kilometer (1.0 per square mile), one of the lowest in the world. Canadians have always preferred to live in dwellings which afford a high degree of privacy, and this is reflected in the comparative housing statistics. Among OECD countries, Canada has the lowest person per room density for principal dwellings at less than 0.5, compared to 0.9 in Ireland and 0.8 in Japan, Austria and Italy. Over 60 percent of Canadians live in dwellings with an occupation density of less than 0.5 persons per room. The U.S.A., which comes next, has only 50 percent of its population living under similar conditions. Canadians enjoy high standards of housing. Well over half of Canada's seven million dwellings are single houses. The average dwelling contains more than five rooms, is well constructed and centrally heated. Almost 100 percent of Canadian households have piped water and amenities such as flush toilets and fixed baths or showers. By comparison, the U.S. is 1 or 2 points below. The majority of houses are generally well-maintained and often surrounded by attractive lawns with flower and vegetable gardens, shrubs, and shade trees.

8.4 Leisure Activities

Canadians are afforded an opportunity to participate extensively in leisure activity, both outdoor and indoor. The Canadian climate provides the opportunity for both winter and summer sports and activities. The abundant resources allow for such diverse pursuits as skating, skiing, camping, boating, swimming, cycling, golf, tennis, mountain climbing, hiking, exploring or any other imaginable adventure.

Canadians participate and achieve significant results in international sporting events such as the winter and summer olympics. During the 1984 Olympic Games, Canada won a record number of medals. Canadians, of course, excel in winter sports, and in 1984/85, were world champions in ice hockey, curling, speed skating, and figure skating. Not to be forgotten are Canadian achievements in summer sports such as track and field, water skiing, sailing, diving and swimming, where Canadians hold several world records and championships.

Canadians are also knowledgeable and fervent spectators. World class facilities such as the Olympic Stadium at Montreal, the domed coliseum at Vancouver, the proposed covered stadium at Toronto, and numerous arenas and stadia in every major centre in the country, afford Canadians with the opportunity of watching the best in the world perform.

Canadians are a cultured and sophisticated people. In most major centres, there are professional and amateur theatre, dance and musical companies. There are excellent art galleries, museums and zoos. Cities have abundant parks and gardens. Canadian restaurants are renowned, and Canadian chefs successfully compete at the culinary olympics, winning several gold medals in 1985. The diverse ethnic mosaic of the population creates culturally-interesting and rewarding opportunities for both education and entertainment in just about any major Canadian location. Canada is not a cultural "melting pot", as is the U.S.A; Canadians are encouraged to preserve and nurture their cultural heritage. The largest ethnic groups are of German, Italian, Ukranian, Polish and Dutch descent.

8.5 Education

Canada has one of the most comprehensive and enlightened educational systems in the world. Canadians have a legal obligation to send their children to school upon reaching the ages of five, six or seven, depending on the province of residence, and must remain in school until the ages of fifteen or sixteen, again depending on the province of residence. However, most children remain in school much longer than the minimum school-leaving age, and many go on to one of Canada's 60 universities or to community colleges. In 1980, over 100,000 university degrees, either bachelor's, master's or doctorates, were conferred, and 64,500 community college diplomas were awarded. In Canada, education up to the university or community college level is free (except for private schools), but in some provinces, there may be a charge for textbooks or school supplies.

8.6 Crime

Canada is a comparatively safe place. Even in the larger metropolitan areas, Canadians are not afraid to walk about at night. Canadians are not permitted to own or carry concealed weapons such as handguns, knives, etc., except by authority granted by the police. Canadians are entitled to own rifles and shotguns for purposes of hunting. This situation is reflected in the lower crime statistics for Canada as compared to the U.S., where restrictions on widespread ownership of concealed weapons are fewer and in some jurisdictions, non-existent.

APPENDIX I

SELECTED TECHNOLOGY CENTERS (119)

NEWFOUNDLAND

Memorial University (St. John's)

- Centre for Cold Ocean Resources Engineering
  Contact: J.A. Whittick, Administrator, Phone: (709) 737-8350

- Marine Sciences Research Laboratory
  Contact: Dr. D.R. Idler, Director, Phone: (709) 726-6681

- Water Analysis Facility - Department of Chemistry
  Contact: Dr. M.D. Mackey, Associate Professor, Supervisor
  Phone: (709) 737-8753

- Centre for Remote and Offshore Medicine
  Contact: Dr. A.M. House, Director, Phone: (709) 737-6433

- Newfoundland Institute for Cold Oceans Sciences - Faculty of Science
  Contact: Dr. R.L. Haedrich, Director, Phone: (709) 737-8833

- Centre for Earth Resources Research - Department of Earth Sciences
  Contact: Dr. C.R. Barnes, Professor and Head - Acting Director
  Phone: (709) 737-8142

Newfoundland Oceans Research and Development Corporation (St. John's)
- Contact: Frank Smith, President, Phone: (709) 364-1200

Atlantic Analytical Service (Springdale)
- Contact: Vera Parsons, Bookeeper, Phone: (709) 673-4222

NOVA SCOTIA

Dalhousie University (Halifax)

- Centre for Marine Geology - Department of Geology
  Contact: J.M. Hall, Director, Phone: (902) 424-2511

- Institute of Oceanography - Aquatron Laboratory
  Contact: Dr. Norval Balch, Manager, Phone: (902) 424-3874

- Canadian Marine Transportation Centre
  Contact: John Gratwick, Director, Phone: (902) 424-3876

- Microelectronics Centre
  Contact: Christine Neilsen, Director of Research Services
  Phone: (902) 424-2211

Technical University of Nova Scotia (Halifax)

- Atlantic Industrial Research Institute
- Contact: G. Peter Wilson, Director, Phone: (902) 429-8300

- Canadian Institute of Fisheries Technology
  Contact: Dr. E. Graham Bligh, Director
  P.O. Box 1000, Halifax, N.S. B3J 2X4

- Nova Scotia CAD/CAM Centre
  Contact: Dr. A.A. Mufti, Director
  P.O. Box 1000, Halifax, N.S. B3J 2X4

- Centre for Energy Studies
  Contact: Dr. D.M. MacKay, Director
  P.O. Box 1000, Halifax, N.S. B3J 2X4

- Applied Microelectronics Institute
  Contact: Douglas Pincock, Director
  1127 Barrington Street, Halifax, N.S. B3H 2P8

- Centre for Water Resource Studies
  Contact: W.C. Hart, Coordinator, Phone: (902) 429-8300

University College of Cape Breton (Sydney)

- Atlantic Coal Institute
  Contact: Dr. Dieter Birk, Executive Director, Phone: (902) 539-2800

- Bras d'Or Institute
  Contact: Dr. D.F. Arseneau, Executive Director, Phone: (902) 539-5300

Nova Scotia Research Foundation Corporation (Dartmouth)

- Applied Science Division
  Contact: D.E.T. Bidgood, Vice-President, Phone: (902) 424-8670

- Industry Services Division
  Contact: J.R. Heliwell, Vice-President, Phone: (902) 424-8670

- Product Development Division
  Contact: C.R. Tyner, Vice-President, Phone: (902) 424-8670

PRINCE EDWARD ISLAND

University of Prince Edward Island (Charlottetown)

- Institute of Man and Resources
  550 Unversity Avenue, Charlottetown, P.E.I. C1A 4P3

NEW BRUNSWICK

New Brunswick Community College (Moncton)

- New Brunswick CAD/CAM Centre
  Contact: John Hanusiak, Manager, Phone: (506) 384-4576

University of New Brunswick (Fredericton)

- Fire Science Centre
  Contact: Janice Marie Moore, Scientific Technician, Phone: (506) 453-4509

- Manufacturing Technology Centre
  Contact: Evelyn W. Richards, Project Director, Phone: (506) 453-4513

- CADMI Microelectronics Incorporated - Centre for Research in Engineering and Applied Science
  Contact: Dr. R.S. Stuart, Director, Research Services
  Phone: (506) 453-4674

- Transportation Group
  Contact: Barry Bisson, Coordinator, Phone: (506) 453-4521

- CADMI Microelectronics Incorporated
  Contact: J.P. Burgess, Director, P.O. Box 4400, Fredericton, N.B. E3B 5A3

Université de Moncton (Shippigan)

- Centre d'analyse et service pour l'industrie de la tourbe
  Contact: Jean-Yves Daigle, Research Coordinator, Phone: (506) 336-4761

New Brunswick Research and Productivity Council (Fredericton)
- Contact: R.S. Boorman, Director, Phone: (506) 452-8994

EASTERN QUEBEC

Université du Québec

- Institut de la recherche scientifique (Ste. Foy)
  Contact: Réal Pelland, Director, Phone: (418) 657-2560

- Centre de recherche en pâtes et papiers (Trois Rivières)
  Contact: Marcel Lapointe, Director, Phone: (819) 376-5687

Université Laval (Ste. Foy)

- Centre de recherches en nutrition
  Contact: Joel de la Nove, Director, Phone: (418) 656-2131

- Groupe pour l'advancement productique - Département de génie mécanique
  Contact: Dr. D. Ngven, Director, Phone (418) 656-2199

Centre de recherche industrielle du Québec (Ste. Foy)
- Contact: Guy Betrand, President & Director General
Phone: (418) 659-1550

Ministère d'Energie et Resources - Service de la cartographie (Ste. Foy)
- Contact: Claude de Saint Riquier, Director, Phone: (418) 643-7666

METROPOLITAN MONTREAL

Concordia University

- Centre for Building Studies
  Contact: P. Fazio, Director, Phone: (514) 879-5995

- Science Industrial Research Unit
  Contact: R. De Mori, Director, Phone: (514) 879-5995

- Centre de recherch informatique de Montréal
  Contact: Charles Giguere, Director General, Phone: (514) 848-3990

McGill University

- Aerospace Research Unit
  Contact: G. Melville Jones, Director, Phone: (514) 392-4311

- Dairy Herd Analysis Centre
  Contact: N.A. Campbell, Manager, Phone: (514) 392-4311

- Geotechnical Research Centre
  Contact: Raymond N. Yong, Director, Phone: (514) 392-4311

- Computer-Aided Design and Robotics Group
  Contact: Professor Angelis, Director, Phone: (514) 392-5474

Université de Montréal

- Centre de développement technologique
  Contact: Denis N. Beaudry, Director, Phone: (514) 344-4722

- Centre d'innovation industrielle
  Contact: Lyse Cornut, Administrative Assistance, Phone: (514) 340-4784

- Centre de recherche sur les transports
  Contact: Jean-Marc Rousseau, Director, Phone: (514) 343-7575

Université de Sherbrooke

- Microelectronics Centre (Sherbrooke)
  Contact: Denis Marchand, Director, Phone: (819) 565-5970

Université du Québec

- INRS Telecom Centre (Montréal)
  Contact: Jacques Blais, Administrative Officer, Phone: (514) 768-6691

Pulp and Paper Research Institute of Canada (Pointe Claire)
- Contact: P.M. Nobbs, Director, Information Services Division
  Phone: (514) 697-4110

WESTERN QUEBEC

CEJEP Lionel Groulx - Institute d'ordinique du Québec (Ste. Thèrése)
- Contact: Gilles Pilon, Director, Phone: (514) 430-3120

EASTERN ONTARIO

Ottawa-Carleton Research Institute (Ottawa)
- Contact: J.G. Turcotte, President, Phone: (613) 231-4321

Ottawa-Carleton Centre for Geoscience Studies (Ottawa)
- Contact: Dr. O.A. Dixon, Director, Phone: (613) 231-4321

Queen's University (Kingston)

- Canadian Institute for Guided Ground Transport
  Contact: J.S. Bryce, Contract Administrator, Phone: (613) 547-5777

- Centre for Resource Studies
  Contact: Sandra Cantelon, Administrative Clerk, Phone: (613) 547-5511

- Carbohydrate Research Institute
  Contact: Walter A. Szarek, Professor and Director, Phone (613) 547-5511

Ontario Centre for Microelectronics (Ottawa)

- Contact: I.G. Mumford, Director of Corporate Affairs
  Phone (613) 596-6690

Ontario Robotics Centre (Peterborough)
- Contact: Ian Barrie, General Manager & Vice-President
  Phone: (705) 876-1611

CENTRAL ONTARIO

McMaster University (Hamilton)

- Institute of Materials Research
  Contact: J.A. Morrison, Director, Phone: (416) 525-4563

McMaster University (Hamilton) - Cont'd

- McMaster Institute for Polymer Production Technology
  Contact: Douglas Keller, Chief Chemist, Hamilton, Ont. L8S 4L7

- Centre for Flexible Manufacturing
  Contact: Dr. Hoda Elmaraghy, Director, Phone: (416) 525-9140

Ontario Research Foundation (Mississauga)
- Contact: W.R. Studelman, Director, Phone: (416) 822-4111

Ontario Auto Parts Centre (St. Catherine)
- Contact: Rob. W. Bombay, Manager of Administration
  Phone: (416) 688-2600

METROPOLITAN TORONTO

Ryerson Polytechnical Institute

- Centre for Industrial Development
  Contact: C. Harry Rosier, Director, Phone: (416) 979-5042

- Centre for Advanced Technology Education
  Contact: Denis Hall, Managing Director, Phone: (416) 595-5000

University of Toronto

- Institute for Aerospace Studies
  Contact: J.H. de Leeuw, Director, Phone: (416) 667-7714

- Institute for Environmental Studies
  Contact: Marjorie Rankin, Administrative Assistant, Phone: (416) 679-2111

- Microelectronics Development Centre
  Contact: Sylvia Franke, Administrative Assistant, Phone: (416) 679-2111

- Institute for Bio-Medical Engineering
  Contact: Dr. Walter Zingg, Director, Phone: (416) 679-2111

- ISOTRACE Laboratory
  Contact: Dr. W.E. kieser, Manager, Phone: (416) 679-2111

York University

- Piezoelectricity Research Laboratory
  Contact: Carl Hruska, Downsview, Ont., Phone: (416) 667-2100

Canadian Plastics Institute
- Contact: Dr. A.J. Babkowicz, President, Phone: (416) 441-3222

Canadian Gas Research Institute
- Contact: Orland Schaus, Director, Phone: (416) 447-6464

SOUTHWESTERN ONTARIO

University of Waterloo (Waterloo)

- Waterloo Institute for Process Development - Department of Chemical Engineering
  Contact: E.B. Cross, Executive Director, Phone: (519) 885-1211

- Institute for Computer Research
  Contact: Ruth Songhurst, Co-Ordinator-Affiliates Program
  Phone: (519) 885-1211

- Institute for Groundwater Research
  Contact: John A. Cherry, Director, Phone: (519) 885-1211

- Computer Communications Network Group
  Contact: J.W. Wong, Director, Phone: (519) 885-1211

- Computer Systems Group
  Contact: Carl M. Durance, Manager, Phone: (519) 888-4004

- Institute for Polymer Research
  Contact: K. O'Driscall, Professor, Director, Phone (519) 885-1211

- Building Engineering Group
  Contact: E. Burnett, Director, Phone: (519) 885-1211

University of Western Ontario (London)

- Systems Analysis, Control and Design Activity
  Contact: Cecil F. Shewchuck, Director, Phone: (519) 679-6570

- Ontario Quality Assurance Centre - Statistical Laboratory
  Contact: Ian B. MacNeil, Director, Phone: (519) 679-2196

- Surface Science Centre
  Contact: N.S. McIntyre, Director, Phone: (519) 679-2111

- Group for Computer Research
  Contact: E.W. Elcock, Professor and Director, Phone: (519) 679-2111

University of Windsor (Windsor)

- Industrial Research Institute
  Contact: Ronald J. Kocela, Office Manager, Phone: (519) 253-8862

- Hybridoma Centre
  Contact: Dr. V. Tackrell, Phone (519) 253-4232

Ontario CAD/CAM Center (Cambridge)
- Contact: Gary Hedges, Manager-Client Services, Phone: (519) 622-3100

Ontario Centre for Farm Machinery and Food Processing Technology (Chatham)
- Contact: Joseph M. Boyle, Administrative Manager, Phone: (519) 354-6883

NORTHERN ONTARIO

Lakehead University (Thunder Bay)

- Centre for Regional Development
  Contact: Dr. M. Oosterveld, Executive Director, Phone: (807) 345-2121

Laurentian University (Sudbury)

- Northeastern Ontario Occupational Health and Safety Resource Centre
  Contact: Dr. D. Hallman, Associate Director, Phone: (705) 675-1151

- Mining Development and Minerals Exploration
  Contact: Helga Humphrey, Director, Phone: (705) 674-7803

Ontario Resource Machinery Centre (Sudbury)
- Contact: Pat Taylor, Regional Contact, Phone: (705) 673-6606

MANITOBA

University of Manitoba (Winnipeg)

- Industrial Applications of Microelectronics Centre
  Contact: Alan J. Shad, General Manager, Phone: (204) 474-8880

- Taiga Biological Station - Zoology
  Contact: Dr. William O. Pruit, Jr., Professor of Zoology
  Phone: (204) 474-9683

- Textile Testing Service - Department of Clothing and Textiles
  Contact: S.A. Brown, Department Head, Phone: (204) 474-8137

- Transport Institute
  Contact: E.W. Tyrchniewicz, Director, Winnipeg, MN R3T 2N2

Manitoba Research Institute
-Contact: Executive Director, Phone: (204) 945-2032

SASKATCHEWAN

University of Regina (Regina)

- Energy Research Institute (Regina)
  Contact: Dr. L.W. Vigrass, Director, Phone: (306) 584-4269

University of Saskatchewan (Saskatoon)

- POS Pilot Plant Corporation
  Contact: D. Hrytzak, Director of Administration, Phone: (306) 343-2100

- Veterinary Infectious Disease Organization
  Contact: Charlene L. Nicholls, Executive Assistant, Phone: (306) 343-2100

Saskatchewan Research Council (Saskatoon)

- Environment Sector
  Contact: J.P. Hutch, President, Phone: (306) 664-5400

- Industrial Technology Sector
  Contact: J.P. Hutch, President, Phone: (306) 664-5400

- Resources Sector
  Contact: J.P. Hutch, President, Phone: (306) 664-5400

- Services Sector
  Contact: J.P. Hutch, President, Phone: (306) 664-5400

ALBERTA

University of Alberta (Edmonton)

- Institute for Coal Research
  Contact: N. Berkowitz, Professor of Fuel Science and Institute Coordinator, Phone: (403) 432-3111

- Alberta Microelectronics Centre
  Edmonton, Alberta T6G 2E5, Phone: (403) 432-3914

- Edmonton Radiopharmaceuticals Centre
  Contact: J.R. Scott, Director, Phone: (403) 432-3111

Alberta Research Council (Edmonton)

- Contact: Dr. R. Steward, Director, Phone: (403) 438-5050

BRITISH COLUMBIA

Simon Fraser University (Burnaby)

- Energy Research Institute
  Contact: Dr. S.R. Morrison, Director, Phone: (604) 291-3151

- Laboratory for Communications and Computer Research
  Contact: Carol Murchison, Administrative Assistant, Phone: (604) 291-3307

- Surface Physics Laboratory
  Contact: J.C. Irwin, Chairman, Phone: (604) 291-3160

University of British Columbia (Vancouver)

- Westwater Research Centre
  Contact: A.H.J. Dorcey, Assistant Director, Phone: (604) 228-4956

- Microelectronics Society
  Contact: 2075 Westbrook Mall, Vancouver, B.C. V6T 1W5

- Department of Mining and Mineral Process Engineering
  Contact: Dr. George W. Poling, Head and Professor, Phone: (604) 228-3981

University of Victoria

- Bamfield Marine Station (Bamfield)
  Contact: Ronald E. Foreman, Director, Phone: (604) 721-7211

British Columbia Research Council (Vancouver)
- Contact: Dr. Allan Mode, Director, Phone: (604) 224-4331

JOINT VENTURE, LICENSING AND TECHNOLOGY TRANSFERS*

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JOINT VENTURES, LICENSING,TECHNOLOGY TRANSFERS

Joint ventures, licensing and technology transfer arrangements have become common fixtures of business in Canada. Available to Canadians and non-Canadians alike, these arrangements offer a number of advantages including access to technology and markets, cost reductions, and increased productivity.

This section provides a comprehensive overview of these popular business practices with particular attention to their legal and tax ramifications.

1. ADVANTAGES OF TECHNOLOGY ACQUISITION

1.1 As a Means of Growth

External growth through licensing has several unique advantages over both research and development, and mergers and acquisitions.

1.1.1 Overall Productivity Improvement

By obtaining a license, a company is able to take immediate advantage of the experience and know-how of the licensor. This increases productivity, not only because of the new licensed product, but also because more time may then be spent on improving older products and their manufacturing methods.

1.1.2 More Rapid New Product Development

With increasing costs of research and development, many companies will find it necessary to look outside for new products and technology. This will result in more meaningful international relationships and should provide the basis for accelerating the pace of technological change. When a company does not have to spend its efforts on developing basic technologies, its growth is accelerated.

1.1.3 Improvements in Production Processes

With rapid increases in technology, it has become more important than ever for a company to know not only what to produce but how to produce it in an efficient and cost-effective manner.

If a company is using all of its internal capabilities to generate new products, its competitors throughout the world may be developing methods of producing their existing products in a more efficient fashion. Thus, the competitors will be able to undercut prices and possibly take away a market from an established manufacturer.

If a company has an organized program for finding new products and technology that can be produced under license from outside sources, then it can devote more of its research and engineering working hours to developing more efficient methods of producing its existing products.

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1.2 Maximizing Control; Minimizing Cost and Risk

The following is a list of reasons why companies decide to acquire technology:

(1) Product life is becoming increasingly shorter. Licensing can ensure a steady flow of new products.

(2) The cost of acquiring fully-developed new products through license is estimated to be as little as 2-10 percent of the cost of developing comparable products internally.

(3) The lead time for introducing new products is reduced dramatically through licensing.

(4) A company can easily and accurately predict its developmental and front-end costs for new products acquired through license.

(5) If a licensed product does not become successful in the marketplace, downside risk is minimal.

(6) Products manufactured under license increase cash flow because development costs are paid for after the products are sold (via royalties) rather than before entering the market.

1.3 Ancillary Benefits

Obtaining technology and the search for it have interesting beneficial side effects. By visiting with counterpart manufacturers throughout the world, it is quite possible you will find new ideas and techniques that relate to types of production machinery used, plant layout, work methods, suppliers, and new products.

In the area of production, the following benefits are possible:

(1) Increased output as a result of the licensed new product.

(2) Reduced unit labor costs for existing products by directing engineering efforts to this area rather than entirely on developing new products on one's own.

(3) Increased productivity through greater utilization of working hours which were not fully utilized prior to the integration of the licensed new product.

(4) Reduced working hours as a result of bringing new technology relating to automation and work methods through specific research in this area.

Even if a technology transfer arrangement is not concluded, the opportunity to perform profitable subcontract manufacturing may occur.

Some interesting marketing opportunities may present themselves in terms of export markets and the products of a prospective licensor. It may well be that the source company has no products which one would be interested in producing under license, but it may have products you could distribute in your home and export markets.

The possibility of cross-licensing may arise because the companies that are sources for offering you new products under license are also the ones who might logically be interested in your products and technology. Therefore, as a by-product of a New Product Search, you may obtain a new licensee for some of your technology.

Another possibility is the joint development of a market in a third country.

Your New Product Search can produce other opportunities for more fully utilizing your facilities and contributing to increased profits. These other possible benefits must be thought of as a bonus for your efforts and should not be planned for initially.

2. NEGOTIATION

The length of time required to negotiate a technology transfer agreement, the number of steps involved, and the manner in which the negotiations are conducted will depend on such factors as:

- the complexity and importance of the proposed agreement;
- the previous relationship of the licensee to the prospective licensor;
- the amount of exploratory research and planning done before opening the negotiations; and
- the time, money and personnel available for or assigned to the negotiations.

There are basically three stages in the negotiation of a technology transfer agreement:

1. Preliminary fact-finding and exchange of views between licensor and licensee.
2. Drafting of a proposal covering the major commitments of both parties.
3. Preparation and approval of a formal contract.

2.1 Preliminary Steps

Several important steps should be taken before or during the early contacts with the prospective licensor.

2.1.1 Ascertain the Financial Status of the Licensor

When you reach a point where you are confident about securing a license, you will want to further investigate the financial background of the potential licensor.

2.1.2 Become Acquainted with the Licensor

Become acquainted with the licensor's management views, methods of operation, objectives, and expectations of performance standards and working relationships under an agreement.

2.1.3 Identify Your Advantages

There are a number of important advantages you can offer a potential licensor. Should a situation arise where you must convince a reluctant source to consider a licensing arrangement, you should be familiar with these advantages and be prepared to offer them in your favour:

(a) You are located in a country with favourable wage rates. You can offer a possible alternative or supplemental source of supply for a licensor who may be losing his competitive position due to high wage rates in his particular sector of industry in the U.S. or elsewhere.

(b) If the licensor is in an industry which is prone to frequent or prolonged labour strikes, being a licensee, you can offer a potential source of product even when his own facilities are not operating.

(c) If your manufacturing volume expectations are modest in relation to the licensor's normal volume, you could represent a potential purchaser of lower speed or capacity production equipment which the licensor may have been using and which he may wish to replace in order to become a more efficient producer in his own operations.

(d) You can provide important feedback of both technical and commercial information and ideas from your own unique market. Being a truly local presence, you are able to provide this type of information without being hindered by language factors or a lack of understanding of local customs and regulations.

(e) The license agreement may be the start of a relationship which may be expanded to include a joint venture on a more important project or technology or some form of eventual investment participation or acquisition of your corporation (or the licensor's).

(f) As a licensee, you can explore the market potential of your corporation for the licensor, thus saving him money which would otherwise have to be spent at considerable risk to test and develop your market.

2.1.4 Identify Your Other Capabilities

There are other capabilities that you can offer a licensor.

(a) The technical contribution which you can make to improve on a licensed product or to adapt it in a novel way to your own market.

(b) The ability to set up the manufacturing capability for the licensed product in the shortest possible time.

(c) The ability to minimize capital outlays in bringing the new licensed product on-stream, either through use of existing equipment and facilities or the clever acquisition of such capabilities.

(d) Special know-how in quality assurance, high volume production, optimization of quality, etc.

(e) Strong product development capability which can be used to build a line of complementary products around the licensed product.

(f) A strong or unique capability to be able either to produce or market a large volume of the licensed product.

(g) Particular strengths in terms of raw material availability, storage, shipping or other logistical factors.

(h) Financial incentives offered by local government in terms of reimbursement for training workers who will produce the licensed product; loans at favourable rates to equip the plant for the new production; tax deferrals and other subsidies offered by government to ensure fullest employment.

2.2 The Negotiation Process

While technology transfer negotiations may be conducted by correspondence or through an intermediary agency or representative, personal discussion and bargaining is generally the favoured method. Negotiation in person leads to better understanding and rapport between the negotiating parties. Mutual respect and confidence is the key to the success of the technology transfer agreement.

It is useful to be aware of some of the more common mistakes that can be made in negotiating a license agreement.

- Failure to do your homework (i.e. technology, product or company evaluation and market analysis).
- The inexperienced negotiator will tend to dismiss in advance any proposal or negotiating point which he thinks the potential licensor will object to.
- A timid, inexperienced or unknowledgeable negotiator will not want to ask the often difficult but necessary questions.
- Even though you have more excess plant capacity, do not let the licensor know that you are desperate to reach an agreement in order to keep your plant doors open. His demands may close the doors sooner than you had anticipated.
- Do not be so eager that you try to reach agreement by backing off from an equitable position in return for only short-term harmony.

3. IMPLEMENTATION OF TECHNOLOGY TRANSFERS

When technology transfers are considered in detail, each transaction has unique elements. It should not be assumed that a given set of factors will fall neatly into a pre-determined category for which a label and standard form documentation is available. Such thinking is likely to lead to insufficient analysis or inattention to detail. It must be taken as a first principle that the purpose and intention of the transaction should govern its form rather than the reverse.

3.1 Necessity for Formal Documentation

While there is no general rule of law that technology transfers must be documented, to proceed with such arrangements without the legal safeguards provided by formal contracts is to court disaster. Prematurely implemented or inadequately documented transactions are among the most typical situations brought before courts for judicial determination.

This is not to ignore the usefulness of exchanging verbal or written proposals, memoranda, letters of intent or non-binding "heads of agreement". The essential thing is to remember that there is no definitive agreement, and withhold actual implementation steps, until the legal documentation has been prepared, agreed upon and executed.

The development of clear documentation is a creative process stemming from the initial assessment of needs and goals, and subsequent interaction of the parties. It should be a team effort between the principals, whose business interests will be vitally affected, and their professional advisors. Some business people are prone to take the oversimplified view that once the elements of a proposal are submitted to counsel, proper documentation will more or less automatically result. While it is the duty of your lawyer to explore and resolve questions which arise in the drafting process, and to produce internally consistent documents, there is no substitute for careful study of intermediate drafts and completed contracts by the parties in interest.

3.2 Nonlegal Elements of Successful Technology Transfers

Mutual understanding and good faith may well be as important to the success of technology transfer arrangements as a comprehensive legal framework. If these elements are present, and the underlying agreement is basically fair to both parties, there is a strong likelihood that problems will be resolved amicably. Formal contracts and forms of business organization seem to work best when treated as a framework for a long-term, cooperative relationship. This is especially true in the case of international transactions, where cultural factors are often very significant.

Nonetheless, good faith is not a substitute for precise and comprehensive contracts which provide both the basic ground rules and the ultimate fallback position in the event of a breakdown in performance or communication. It is well to remember that written contracts are likely to remain long after the individuals who negotiated or initially administered them have left the scene.

3.3 "Standard" Documentation

It is commonplace for a supplier of technology to submit copies of his "standard" documentation as soon as a serious intention to negotiate has been established. This practice is especially common in the case of licensing, and is discussed in more detail under that heading. The tactics of a technology supplier in proffering ready-made documents may be initially attractive to the recipient, who is inclined to see in it a gesture of acceptance and a straightforward method of moving ahead. If he lacks a secure strategy of his own, the other party's forms may appear as a life raft in a sea of uncertainty.

Needless to say, the party receiving "standard" documentation should proceed with caution. Careful business and legal analysis will reveal whether or not the document is satisfactory as a starting point. It is astonishing how often the proffered documents miss critical points of the particular transaction or contain language which is unsuitable because it was originally drafted for a different set of circumstances. Foreign documents may also fail to take into account important Canadian legal requirements.

3.4 Role of Lawyers

Technology transfers usually require the assistance of legal counsel. Opinions differ as to the stage at which counsel should be introduced into the process. Some perceive the early involvement of lawyers in negotiations as tending to create an unnecessarily formal or adversarial environment. Others involve counsel at an early stage with a view to avoiding pitfalls and proceeding in an organized and efficient manner. Both views may be valid, depending on one's own experience and the role or roles counsel is expected to assume.

Early consideration of basic guidelines, tax considerations, legal peculiarities of the foreign jurisdiction, and foreign investment review considerations can serve as excellent preventive medicine. In this connection, it is advisable to secure the advice of competent counsel in the foreign jurisdiction to advise on such factors and generally be available for consultation from the outset.

This does not mean that legal counsel need necessarily be present in the early factfinding phase or preliminary negotiations. It is recommended, however, that counsel be involved at least on an offstage basis whenever documentation is being prepared which is capable of being later relied upon by one party or the other. This caution extends even to the purportedly non-binding letter of intent or heads of agreement, which may give more far-reaching effects than anticipated if not prepared with sufficient skill.

3.5 License or Joint Venture

In most cases, the basic implementation choice will be between licensing alone and some form of joint venture. While it is probable that a joint venture will include licensing as the framework for transferring technology from one or both parties to the venture, the elements of shared equity and management will largely determine their relationship and distinguish the joint venture arrangement from arm's-length licensing. A comparison of licensing arrangements and joint ventures is set out below. Bear in mind that the distinction may not be clear-cut.

3.6 Comparison of Licensing and Joint Ventures

License Agreement	Joint Venture
Purpose	
Licensee has existing or available products or facilities but requires technology, which may be acquired more cheaply or quickly from third parties than by internal research development. Need may be limited in extent or duration.	Transferee has more comprehensive needs which may include capital, permanent injection of management or technical assistance, and access to markets not available through licensing alone.
Licensor seeks exploitation of its technology in territories of secondary interest.	Transferor seeks direct entry into new markets; recognizes value of local participation. Government endorsement of foreign direct investment may be supported by degree of local involvement.
Licensee seeks to maximize its own business by addition of new technology. If royalties are based on sales, licensor's interest is in maximizing sales rather than profits.	Joint venture partners have mutual interest in generating profits from the venture. License may be present but incidental to joint objective of maximizing business profits.
Relationship of Parties	
Parties deal at arm's length. Licensee exploits licensed rights and pays royalties. Licensee accepts conditions of use, including product and territorial limitations and possible restrictions on ownership and use of its own improvements.	Parties unite resources in a common enterprise to which both are committed on a continuing basis. Typically, party provides technology, technical assistance, and capital; while the other provides basic production facilities, local marketing expertise, national identity, and capital.
Parties remain potential competitors subject to specific terms of licensing arrangement.	Competition is eliminated within the scope and duration of joint venture.
Benefits/Deficiencies	
Initial outlay of funds is minimized for both parties.	Greater commitment of capital.
Licensee remains dependent upon his own infrastructure, including management skills.	Pooling of all resources of the parties may create a stronger economic unit than either could achieve independently, with only limited assistance from the other.

	Purpose
Licensee remains free to manage its own businss subject to restrictions of limited duration.	The parties are committed to cooperation and (usually) shared management. Some joint ventures fail because of differences in basic assumptions, management styles or competition for control.
Licensor has only indirect involvement in the markets to which the license applies and may not maximize profits.	Joint venture is a form of direct investment for the foreign technology transferor. The local joint venture partner offers, among other things, knowledge of local markets, laws and customs, and personnel adapted to the local environment.
Divides risk.	Spreads risk.

4. OUTRIGHT PURCHASE

The outright purchase of intellectual property is used infrequently as an alternative to licensing and joint ventures. When appropriate, it is the simplest mode of acquisition. The transfer documents need contain little more than an accurate description of the property being transferred, the price and terms of payment and language by which the transferor clearly transfers and warrants good and marketable title.

Assignments of registered rights such as patents, trademarks and industrial designs assume a fairly standard form containing all the requirements for registration in the appropriate government office. Agreements for the outright purchase of unpatented know-how are somewhat more complex because of the amorphous nature of the subject matter. The vendor may not ordinarily divest himself of all rights in know-how, but will either reserve rights of user in his own market or purport to sell the rights as they apply to the purchaser's territory.

It is obvious that this is no ordinary sale of property as understood in relation to tangible goods or real estate. There are some learned discussions in judgments of the Canadian and English courts, dealing with issues of taxation, as to whether or not know-how is "property" at all. For practical purposes it may be labelled as property, but its peculiar character must always be taken into account.

In what purports to be an outright sale and purchase, the buyer will undoubtedly extract covenants to the effect that the seller will not make further sales or disclosures to third parties or will do so only within certain limits. The buyer may impose on the seller additional duties to guard against unauthorized disclosure and assist the buyer to prevent or remedy unauthorized use or disclosure. In short, an agreement for the purchase of know-how will contain some of the same elements as a license agreement. The seller is likely to require reciprocal covenants from the buyer to protect his residual interest.

Some possible reasons for the relative infrequency of outright purchase as a method of acquiring technology are the following:

1. Owners of intellectual property rights are often simply unwilling to contemplate unrestricted divestiture. This is likely to be especially true of state-of-the-art technology.

2. Transferees seeking continuing technical assistance and/or rights to the transferor's improvements and future developments may find that outright purchase is not a sound basis for such an ongoing relationship.

3. Except in the case of mature technology with a history of market testing, the value of intellectual property is difficult to assess.

4. The purchase price is an up-front cost to the purchaser, unlike a rent or royalty based on use or a share of equity in the purchaser's business which costs him nothing in immediate monetary terms.

In other contexts, the outright sale and purchase of intellectual property rights is a common occurrence. The organization of an international licensing program may involve the outright transfer of intellectual property rights from the owner to a wholly-owned or joint-venture licensing subsidiary, which may be located in a low-tax jurisdiction. Again, when all the assets of an ongoing business are bought and sold, the purchaser obtains title to any intangible property rights of the business, as well as to land, buildings and equipment.

5. LICENSING

5.1 Canada is Attractive To Transferors of Technology

Canada is attractive to foreign licensors for a variety of reasons.

5.1.1 Licensing Not Regulated

Canada has no regulatory scheme governing licensing arrangements. In some countries, licenses are not valid until governmental approval or registration has been completed. Registered licenses may be available for public inspection. The potential foreign licensor is usually pleased to learn that Canada does not require any such registration or public disclosure.

5.1.2 No Foreign Investment Review

Canada's Investment Canada Act, which establishes a screening process for new foreign investment in Canadian businesses, has no application to licensing unless it relates to the control of a Canadian business entity.

5.1.3 Exclusive Licenses Permitted

Many countries impose restrictions on license agreement, granting exclusivity in relation to products or territory. Such restrictions are based on the theory that such exclusivity may reduce competition or otherwise restrain trade. Canadian law addresses this subject by placing exclusive dealing, market restriction and tied selling in a category of reviewable trade practices.

Such practices are not prohibited outright and do not constitute criminal or civil offences. Where competition is likely to be lessened substantially because the practice is widespread or the supplier has a commanding position in the market, an order prohibiting the practices can be issued by the Restrictive Trade Practices Commission after affording the supplier a reasonable opportunity to be heard. Such prohibitions are extremely rare. The practical result is that, in the vast majority of cases, business considerations dictate whether the license agreement may provide for exclusive dealing, market restrictions or tied selling. This is an area in which a confirming opinion of legal counsel should be obtained.

5.1.4 No Exchange Controls

Canada does not have any exchange controls or other restrictions on the payment of royalties. Like most countries, Canada taxes royalty payments to non-resident licensors. The so-called withholding tax on such royalties is set at 25 percent in the Canadian Income Tax Act, but is reduced to 15percent or less if the payment is made to licensors in any of the following 32 countries with which Canada has entered into tax treaties.
Tax treaty countries: Australia, Austria, Barbados, Belgium, Denmark, Dominican Republic, Finland, France, Germany, Indonesia, Ireland, Israel, Italy, Jamaica, Japan, Korea, Malaysia, Morocco, Netherlands, New Zealand, Norway, Pakistan, Philippines, Rumania, Singapore, South Africa, Spain, Sweden, Switzerland, Trinidad & Tobago, U.K., U.S.

5.1.5 Freedom of Contract

Canadian license agreements are one variety of ordinary commercial contracts. As such, they benefit from the venerable principle of freedom of contract. The parties may, for the most part, create their own legal framework by the manner in which the contract is written. They will only be successful, of course, to the extent that the contract is clear and unambiguous.

The courts have created many rules to assist judges to arrive at some conclusions as to the intention of the parties where contract language is ambiguous or the written agreement fails to address a specific issue. However, judicial interpretations emerge as the result of litigation which is often long, expensive and not fully satisfying to either party. It does not provide an effective way for the parties to an ongoing business relationship to solve problems as they occur.

6. LICENSE AGREEMENTS

6.1 Agreements and Forms

6.1.1 Point of Departure

While license agreements must cover such basic subjects as the rights granted, the consideration payable, and the duration of the arrangement, there is no definitive form.

6.1.2 "Standard" Forms

We noted earlier, some licensors develop forms which they designate as "standard". There are three basic situations in which such forms are offered.

1. The licensor, usually a large corporation with an extensive licensing program, administers the program by using comprehensive printed forms based on its years of accumulated experience. Space is left for identification of the licensee, and mechanisms are provided for the inclusion of items which vary from contract to contract, such as the definition of licensed rights, territory and royalty rates. Even these factors are in some instances invariable. In this context, there is little room for negotiation of terms. Such forms are scarcely adapted to the requirements of complex manufacturing arrangement where many individual items and the overall working relationship are likely to require custom-tailored treatment.

2. The licensor has had some experience with licensing, from which documentation designated "standard" has emerged. While there is much more flexibility to negotiate than in the first situation, the licensee may be expected to present its variations to the standard contract on an exception basis.

3. The document designated "standard" may in fact be nothing more than an adapted version of the contract which the licensor has most recently entered in another jurisdiction. In such a case, there is ample room for negotiation. The licensor may decide to counter with his own draft agreement.

The conclusion is that, if licensors' "standard" forms cannot be avoided altogether, they should be treated, at best, as a starting point for the process of formal documentation.

6.1.3 Licensed Rights and Products

Licenses deal with rights which fall within the broad and sometimes elusive category of intangible or intellectual property. There are many such rights, but those in which licensees are interested are patents and registered industrial designs, unpatented technology or trade secrets (often called "know-how"), trademarks and copyrights.

The particular rights in which a licensee is interested usually find concrete expression in a definable product. If so, it is useful in the license agreement to make reference to the product as well as to the underlying intangible property rights. "Licensed Product" will typically be defined to mean that product (possibly identified also by name, size, capacity or other characteristics) which incorporates, in whole or part, any of the inventions covered by the licensed patents or any elements of the licensed know-how.

Intangible property rights may be licensed separately. It is not uncommon to encounter a bare patent, know-how or trademark agreement, especially in the domestic context. International technology transfers more commonly involve a package of such rights. A brief discussion of patents, trade-marks, industrial designs, copyright and know-how, taken separately, will give the reader some tools for dissecting and better understanding such a potentially confusing hybrid arrangement.

6.2 Patents

Patents are limited monopoly rights, created by a government, which confer on the owner the right to exclude others from making, using and selling the invention. A licensee must therefore obtain rights for each country in which he wishes to manufacture or sell products incorporating the patented invention. Merely by granting a patent license, the patent owner does not technically convey anything but agrees, within the terms of the license agreement, not to exercise the right he would otherwise have to sue the licensee for infringement.

For practical purposes, a patent license is treated as a limited transfer of property for the life of the patent or a lesser defined term. In Canada, a patent has a life of 17 years from the date of grant. Since patents contain a disclosure of how to practise an invention, they do not enjoy continuing protection as trade secrets after the term of protection expires.

"Licensed Patents" will typically be defined in the license agreement to mean those patents listed by number and country on a schedule and any patents issuing from similarly listed patent applications. This definition may also be extended to include patents later applied for which constitute improvements or in some other way are related to those previously referred to. Whether or not the scope of the license extends to improvements or related inventions is an important planning and negotiating point to which we shall return.

The Canadian Patent Act requires exclusive patent licenses to be registered in the Patent Office. However, no consequences result from failure to register, and in practice, such registration is the exception rather than the rule.

6.3 Trademarks

Registered trademarks are similar to patents in that they are limited monopoly rights protected by legislation.

A trademark must be registered in Canada before the mark can be validly licensed in Canada. An application for registration can be based on use or making known, or on proposed use, of a trademark in Canada or on use and registration of the mark in the licensor's home country. If an application is based on proposed use, actual use of the trademark in Canada must begin before registration will issue. This use can be exercised by a licensee.

An important but often overlooked matter is that a Canadian trademark registration can be invalidated if the trademark is used by a licensee without formally recording the licensee as a user of the trade mark in the Canadian Trade Marks Office. All licensees of a trademark must therefore be recorded as registered users of the trademark. The principle of user registration is strictly enforced by Canadian courts and applies equally to subsidiaries or related companies of a licensor.

Registration is simple and inexpensive. A short "registered user agreement" containing pertinent details, including provision for quality control by the licensor, can be registered instead of the entire license agreement.

In Canada, title to registered trademarks may be preserved indefinitely so long as use of the mark continues and renewal is effected every 15 years.

6.4 Industrial Designs

Like patent and trademark rights, rights to an industrial design are created by statute. An industrial design is any original shape, pattern or ornamentation applied to a manufactured article such as a table shape or fabric pattern. An industrial design must be filed and registered within twelve months from the date of its first public disclosure in Canada. Registration is valid for five years from the date of registration and may be renewed for one further five-year term.

Licenses of industrial designs must be in writing but need not be registered. The Canadian Industrial Design Act requires that articles incorporating a registered design bear the name of the registered owners, the letters "Rd." and the year of registration of the design. If the article is physically difficult to mark, the information can be on an accompanying label.

6.5 Copyright

In Canada, copyright exists in original literary, musical, dramatic and artistic works for the life of the author plus 50 years. There is some question in Canada whether copyright can exist in non-aesthetic matters. Copyright arises from creation of the work and does not depend on registration pursuant to The Copyright Act. Such registration creates certain presumptions in favor of the registered owner and facilitates the collection of damages against infringers. An application to register the copyright in a work may be filed at any time during the term of its existence. If the subject matter is capable of registration, either as a copyright or industrial design, and is to be multiplied by an industrial process, it must be protected as an industrial design.

6.6 Unpatented Technology or "Know-How"

Unlike patents, trademarks, industrial designs and copyright, there is no statutory protection for know-how. The licensor is protected in relation to the licensed know-how only by the terms of the agreement. In spite of this apparent softness in its legal status, know-how is very often the most valuable element in a license. At the least, it tends to enhance the value of other licensed rights. Reciprocally, the contemporary licensing of patents, industrial designs and trademarks tends to provide the licensor with a statutory basis for exercising some control over the use of the licensed know-how.

Defining the "Licensed Know-How" in a particular license agreement may be a demanding task. It is scarcely sufficient to refer, in circular fashion, to "all the data that are or will be provided by licensor to licensee under the agreement". The task is to design a definition which expresses the intention of the parties sufficiently to allow them to work out the technology transfer without including exhaustive detail or full disclosure in the agreement itself. The following examples from actual agreements are indicative of the approach.

"Know-How" Sample Definitions

"Licensed Know-How" means the accumulated knowledge, experience and information relating to the design and manufacture of a product, which on the effective date of this agreement the licensor has in its possession including, without limitation: unpatented and unpatentable discoveries, inventions, processes and formulae, and technical data such as drawings, designs, blueprints, plans, specifications, material lists and catalogues; process descriptions; operational manuals, engineering, technical and scientific reports; and, economic studies and reports.

"Licensed Know-How" shall mean all information and technology, written or unwritten, patentable or unpatentable, owned by a Licensor now or developed by a Licensor during the term of this License Agreement, relating to the development, use, manufacture and sale of Licensed Products including, without limiting the generality of the foregoing:

- all basic design data including design drawings;
- all specifications relating to manufacture and performance; and
- all test data and projections.

"Licensed Know-How" shall mean technical facts, data or advice, written or oral, in the form of reports, drawings, manuals, specifications, bills of materials, photographs and the like, relating to a product system or any of its components and processes, compositions or articles of manufacture, and apparatus utilized on a commercial scale by either of the Licensors in their manufacture, fabrication, testing, packaging, marketing, and filed installation of a product system or any of its components in the regular course of their business throughout the term of this Agreement; provided, however, that the Technical Information shall not include any of the following: (specific exclusions omitted).

Strictly speaking, the know-how which a licensor has the right to license, and for which fees are properly paid, is know-how of a specialized, secret and proprietary nature. The licensee is at liberty, quite apart from the license, to use any industrial know-how which he finds in the public domain. For this reason, agreement definitions usually make reference to the special secret and proprietary nature of the know-how which is being licensed. The term "trade secrets" is sometimes used to emphasize these characteristics.

The distinction between public and proprietary know-how is not always clear, and to avoid such a distinction some license agreements will focus on the end product as well as the know-how required to produce it. The licensee should receive the right, among others, to manufacture, use and sell specified products of the licensor's design, incorporating its patented inventions or made to its specifications.

6.7 Description of the Parties

It is said that the essential elements of any contract are the parties, the property and the price. A clear and correct description of the parties to a license agreement is indispensable. Corporate names should correspond exactly with the names shown on incorporating documents.

A division of a corporation cannot be a party to a contract. A common and useful practice is to identify, along with the corporate name of each party, its incorporating jurisdiction and principal place of business.

6.8 The Preamble or Recitals

Recitals provide an opportunity to set the stage by describing the parties, their purpose in entering into the arrangement and their respective roles. Definitions and schedule references may appear in these recitals or be held in reserve for a separate definition section.

6.9 Defined Terms

We have referred to the practice of developing defined terms such as "Licensed Product", "Licensed Patents", and "Licensed Know-How" for the purposes of a particular agreement. The use of such terms may appear formalistic and awkward until one becomes accustomed to it. It is, however, an excellent device for simplifying complex documents. Defined terms should be carefully chosen and consistently used. The kind and number of terms defined will vary from one agreement to another. As noted earlier, you should define the basis on which royalties will be calculated ("Gross Sales", "Net Sales", "Net Profits") and territorial coverage of the agreement ("Territory"). The period for which the license is intended to be in force may be called the "Term". Indeed it may be useful to distinguish between the "Initial Term" and a "Renewal Term". Such terms can be "invented" whenever they would appear to serve a useful purpose.

6.10 Use of Schedules

The appended schedule, sometimes referred to as an "exhibit", or "appendix", is another device for achieving clarity and simplicity. It allows for the segregation of property descriptions and excessively technical details such as royalty escalation formulas and minimum sales requirements so that the body of the agreement can focus on its basic intent.

6.11 The Grant

Broadly speaking, a license agreement embodies a licensor's commitment to grant license rights and a licensee's reciprocal commitment to use such rights under the restrictions described in the agreement and to pay royalties. The grant therefore lies at the heart of the agreement and usually appears as the first operative clause following the definition of terms.

Assuming that the license agreement covers all the forms of intangible property, the essential elements of the grant may be summarized as follows:

- Right to use licensed patents, trademarks, industrial designs, copyrights and know-how;

- Right to manufacture products embodying the patents, industrial designs and know-how and/or products of the licensor's design as defined in the agreement;

- Right to sell such products.

A number of questions immediately arise. Where may each of the rights be exercised? Are they exclusive or not and, if so, does the licensor exclude himself as well as agreeing not to license third parties? What about the licensee's right to sublicense others? These questions may be resolved within the grant clause itself or under separate headings.

6.12 Geographical Limitations on Licensee

Licensors usually protect themselves against competition at home and in other major markets in which they are active by confining the exploitation of licensed rights to a defined territory. They may also be under contractual obligations to protect their other licensees.

Licensees, on the other hand, seek to obtain licensed rights in order to increase their own sale and profits and consequently have an interest in exploiting such rights in as much of their actual or potential market area as possible. Different considerations may apply to geographical limitations on manufacturing, selling, and sublicensing.

Depending on the cost of transportation for products, restriction of manufacturing to Canada may be acceptable to the licensee. Restriction of sales to Canada is likely to be less acceptable. Such restrictions should not be accepted without full consideration of the long-term consequences and exploration of the licensor's degree of flexibility. The licensee may otherwise obtain access to foreign technology through licensing to increase the speed and reduce the cost of product development, or to increase productivity through diversification, only to find that his ability to reap the rewards of success is seriously limited by market restrictions.

One avenue the prospective licensee may explore to strengthen his negotiating position is to examine the anti-trust laws of the licensor's home jurisdiction. Nations frequently purport to regulate the behaviour of their nationals beyond their own territorial boundaries to prevent behavior which may have an internal domestic effect.

The United States and the Western European nations of the European Economic Community all purport to exercise such jurisdiction over practices in restraint of trade or monopolization in export commerce. Practices such as export combination, exclusive dealing, price fixing, resale price maintenance and market allocations may all be caught under the extra-territorial enforcement of such legislation.

The vigor with which such laws have been enforced has led some countries to enact legislation which limits or "blocks" the effect of such legislation. Canada has considered but never adopted such "blocking" legislation. As a result, a prospective Canadian licencee should be aware that such legislation may well restrict the licensor's ability to require its licensees to enter into agreements containing what might be considered restrictive trade practices in the licensor's own country.

6.13 Exclusivity

Canadian licensees should seek to negotiate exclusive rights to manufacture and sell in Canada and other desirable markets not serviced by the licensor and non-exclusive rights to sell in other markets. Flexibility may be provided by leaving the agreement silent on the matter of export sales.

Unfortunately, domestic market exclusivity and territorial marketing restrictions often go together. If this is so, a potential licensee might well consider forfeiting the advantages of exclusivity in order to secure wider market flexibility. At the least, the Canadian licensee should ensure that any limitations on sales outside of a defined territory apply only to products incorporating the licensed rights.

6.14 Right to Sublicense

Whether sublicensing will be sought or allowed, and under what circumstances, will vary greatly from one situation to another. Licensors may look upon a grant of sub-licensing rights as a means of promoting wider exploitation of the license rights or as a dangerous further dilution of the licensor's control of his intellectual property. The licensee may seek the right to sub-license to permit him to subcontract the construction of components or to move manufacturing closer to markets within his territory.

Earlier comments regarding the need to record all users of a trademark in the Canadian Trade Marks Office apply as well to sublicensees. Failure to officially record a sublicensee may invalidate a trademark registration. In theory, trademark sublicenses as such are not registrable. In connection with the sublicense, some device must be found for the sublicensee to receive a grant of trademark user privileges directly from the registered owner.

6.15 Duration

The parties to a licensing arrangement commit themselves to a continuing relationship which involves both substantial advantages and onerous obligations. Terms relating to duration are among the most critical. Often, both parties are seeking a congenial, long-term arrangement. Occasionally they are prepared to contract absolutely for a long period of years or for a license in perpetuity. More often, a system is established for periodic review.

A common practice is to define an initial term with automatic extension for one or more renewal terms unless, within some specified time or prior to an expiry date, one party gives the other written notice of its intention to terminate. Automatic renewal may only be effective if certain conditions in the original license have been satisfied. A variation is to specify a term with a provision that, at its conclusion, the parties will enter into good faith negotiations with a view to renewal. These devices establish a framework for continuity but do not give either party an assurance that the license will extend beyond the specified term.

Frequently the interests of the parties, in relation to duration, differ. The classic case is that of the licensor for whom the license is a preliminary step in a long-term strategy for direct involvement in the licensee's territory. In these circumstances the licensor may offer a shorter license term than the licensee is prepared to accept. The reverse situation may exist where the licensee is seeking outside technology essentially to shorten development time or to overcome a particular technological problem. When these objectives have been realized, he may no longer need the license and wish to be free of the royalty payments, market restrictions, feed-back licensing arrangements and other obligations. Heavy start-up and maintenance costs on the part of the licensee will necessarily militate in favor of a longer license term. Long-term business strategy must invariably be taken into account.

The license agreement will provide for premature termination, either automatically upon the happening of certain events such as the bankruptcy or insolvency of one of the parties, or at the option of one party in the event of specified defaults by the other. Such events may include a failure by the licensee to make prompt payment of royalties or failure by the licensor to deliver updated technology or the technical assistance contracted for.

An often unnoticed or underestimated hazard for licensees in today's environment is the rapid pace of technological change. A long-term licensing arrangement, particularly one which provides for substantial minimum royalties, will prove onerous if the licensed technology becomes obsolete. This observation emphasizes the necessity for extreme care in selecting the licensed technology.

6.16 Grant of Rights in Licensor's Future Improvements

One of the fundamental choices in licensing is whether or not downstream refinements or improvements made by the licensor will be included in the grant. Once the choice is made, it may be reflected merely in the definition of the licensed rights or in more specific contractual provisions. Rights to future technology may take the form of an option to acquire a right of first refusal rather than an automatic inclusion in the original grant. They may be exclusive or non-exclusive.

The inclusion of future rights provisions in the license agreement may appear to represent an unmitigated benefit to the licensee. Indeed, in many instances such provisions are considered indispensable to achievement of the licensee's goals. The majority of license agreements which we have reviewed contain such provisions.

The recipient of a future rights clause may have difficulty in resisting the licensor's request for a "flowback" clause granting the licensor rights in the licensee's related research and development. Flowback provisions may act as a deterrent on the licensee's own research and development. The grant of future rights also strengthens the licensor's hand in negotiations for manufacturing location and market restrictions.

Potential licensees should be prepared for negotiating positions reflecting these tradeoffs. It may be of interest that according to recent research, diversified licensors, those companies whose sales are composed of numerous unrelated or loosely related products, impose fewer license restrictions than dominant product licensors, whose sales for the most part are related to single or related products, even when rights to future technology are granted.

Future technology grants may carry a price in terms of royalty rate, but there is reason to believe that this is less common in practice than might be supposed. If the price of future technology, whether in financial terms or trade-off concessions, is too high, the licensee faces the choice of refusing the license rights offered or resolving to license current technology only and compete with the licensor in maintaining and improving the licensed technology.

6.17 Flowback Agreements

Reference has been made to "flowback" clauses whereby some benefits of improvements made by the licensee revert to the licensor. A common negotiating position on the part of licensors is to demand that improvements to the licensed technology made by the licensee automatically become the property of the licensor or, at the licensor's option, become available to the licensor on an exclusive royalty-free basis. The inclusion of such a clause is not invariable, however. Licensees may negotiate to license their improvements in the licensed technology to the licensor on an exclusive or non-exclusive basis at an agreed royalty rate. A "grant back" to the licensor may extend beyond the term or territory of the original agreement.

6.18 Royalties

Licensing is characterized by the royalty form of payment. Royalties are periodic payments based in some manner on use of the licensed rights.

The relationship of payment to use can be established in a variety of ways. Probably the simplest form of royalty, frequently seen in the recording and book publishing industries, is the fixed amount per unit sold. This formula may be appropriate where the product can be clearly identified and the royalty applies to limited quantities or for a limited period of time. It is not usually a satisfactory approach in an industrial context. Some of the alternatives are discussed below.

6.18.1 Percentage of Sales

The most common form of royalty mechanism is the percentage of gross or net sales, sometimes prefaced by one or more lump sum payments which serve as earnest money and as a contribution to the licensor's costs of negotiating the arrangement and implementing the initial transfer. The rate of royalty may be fixed or variable. For example, the rate may progressively decrease as various levels of sales volume are attained. Such graduated sales enable a licensee to reduce the impact of royalties while providing him with an incentive for maximizing volume.

The "royalty base" should be well considered. A simple reference to "gross sales" may sometimes suffice since gross sales figures can ordinarily be determined by inspecting the licensee's accounts. However, a more common practice is to refine the definition by identifying ways in which the gross sales figure is to be adjusted before royalties are calculated by applying the royalty rate. Such adjustments may include the deduction of such items as commodity taxes, customs duties, commissions, trade discounts, packing charges, transportation charges or insurance costs. The result is a "net sales" figure. Use of a defined term to describe the royalty base can simplify the vital royalty payments clauses of the license agreement.

Various devices may be used to guard against contingencies. For example, the licensor may insist that the initial sales figure be based on published price lists or other evidence of fair market value to guard against a dilution of royalties when the licensee sells at discounted prices.

6.18.2 Royalty Based on Production

In some instances, the sale price of goods sold may not be considered a sufficiently accurate measure of technology use. One alternative is to calculate the royalty as a fixed amount per unit of product manufactured or by reference to weight, volume or other indicators of output. A production basis inevitably favors the licensor because royalties are calculated at an earlier point in the industrial cycle and paid in respect of stockpiled inventories, which may become obsolete, products or components used by the licensee, and returns from purchasers.

6.18.3 Percentage of Net Profit

Royalties based on licensee profits are rare. Their use implies substantial licensor confidence in the licensee's manner of exploiting the licensed rights and accounting for profits. This method usually requires a detailed understanding as to the manner in which profits will be calculated. This may be difficult since the licensee's operations under the license may not represent his entire business undertaking, and in practice, profits are not always calculated on a product line basis.

The use of profits as a royalty base tends to move the arrangement into a hybrid category midway between licensing and joint venture, as the licensor is likely to feel impelled to take a more direct interest in management of the licensee's business to protect his national "equity".

6.18.4 Lump Sum Payments

A predetermined lump sum payment is not considered to be a royalty in the true sense, even if payable by instalments, because the amount is not related to use. For the limited purpose of charging the licensor a withholding tax, some such payments may be brought within the meaning of royalty as noted elsewhere. In rare instances, lump sum payments may be appropriate to the circumstances. Certainly they are simpler than any other form of consideration for intellectual property rights from an accounting point of view. Presumably, the amounts will usually be based on pre-estimates of sales or profits.

6.18.5 Payment-Free Licenses

The licensor's motive in granting license rights may not always be to earn a monetary consideration. Licensor and licensee may enter into a complete cross-licensing agreement, for example, whereby each becomes entitled to utilize the technology of the other in a specified territory without additional consideration. The motive is to promote an active, ongoing two-way flow of data.

6.18.6 Determining the Royalty Rate

Having decided upon an appropriate royalty base, the parties must agree upon a rate. There are no hard and fast rules governing royalty rates. This is because there is rarely a clearly-defined market for intellectual property as there is for most tangible products. It is usually the licensor who opens negotiations by suggesting a royalty rate. Many licensors rely primarily on more or less established industry norms. This is especially true where the technology is mature and relatively homogenous.

The licensor's perspective may reflect his research and development expenditures or the anticipated profits of an alternative investment. These are factors peculiarly within the knowledge or perception of the licensor and consequently may not be openly disclosed in negotiations with the licensee.

A more objective approach is to estimate how the royalty will effect an allocation of actual profits from exploitation of the licensed rights. Curiously, in practice, parties to a proposed license do not appear to make in-depth studies of this factor.

Basically, the process of fixing royalty rates is one of negotiation, with each party making its own analysis as to the value of the transaction. It might be imagined that the licensor is likely to have a carefully considered position and a narrow range of flexibility with respect to the negotiation of royalty rates. Surprisingly, experience as well as published research indicate that the range is much wider than might be expected.

6.18.7 Other Issues in Writing Royalty Clauses

Depending on the royalty base selected, it may be important to identify: the point at which an item is considered to have been manufactured or at which a sale has occurred; the time at which the obligation to pay the royalty arises; and the method of payment.

6.18.8 Royalty Escalation Clause

The licensor may take the position that lump sum payments, minimum royalties, minimum sales quotas and other payments and obligations of the license should be subject to an escalation clause based on fluctuations in some published index, such as the Consumer Price Index. Invariably such clauses are initially proposed for the benefit of the licensor. Since the licensor is primarily interested in upward adjustment, licensees who find they must accept escalation clauses should ensure that downward fluctuations are also adjusted to their benefit.

A licensee's right to renew the license for a further term may also be based on minimum sales quotas as adjusted by fluctuations in the Consumer Price Index. Such terms are common in license agreements in the clothing industry. Fluctuations are usually taken into account in multiples of 10 percent from a defined base point.

Other indices are used in various industries. Such indices have common characteristics, including publication to the public on specified intervals and compilation by a neutral party, such as government or an industry association.

6.18.9 Designation of Currency for Payment of Royalties

Today, wide fluctuations of monetary exchange rates are prevalent. In most license agreements, the licensee is obliged to pay royalties to the licensor in the domestic currency of the licensor. It is commonplace for the parties to agree that conversion to the currency of payment must be at the rate of exchange on the due date of payment, tied to an internationally recognized and published exchange rate or based on the average exchange rate for a specified period. An alternative is for payments to be made in a stable currency such as U.S. dollars, although this is not common. The most favourable position for the Canadian licensee is for payments to be calculated in Canadian dollars since this is the currency in which his sales and profits are calculated.

6.19 Minimum Performance Requirements

In the interest of exploiting the license potential to its fullest capacity, the licensor will demand that the licensee use his best efforts to create and supply the most extensive market possible for licensed products. Having foregone the opportunity to sell his products in the licensee's territory, the licensor will require some reassurance that the licensee will work the licensed rights. In addition, world-wide promotion may be supported by sales and advertising in the licensed territory. Home country legislation may also require working of the licensed technology to preserve the licensor's monopoly.

Imprecise "best efforts" provisions may not provide enough protection for the licensor, who may require that the licensee meet minimum sales standards or quotas. Such minimums may be related to royalty payments or unit sales volumes but can include the employment of named personnel or fixed expenditures for advertising and promotion. In this regard, royalty incentive clauses are common and may result in lower royalty payments at specified sales achievement levels.

The question then arises: What will be the consequences of a failure to meet minimum requirements? An obvious choice is termination of the agreement. Mere termination, however, may not serve the licensor's purpose but merely leave him with neither licensee nor compensation for the licensee's failure to perform. Some alternatives to termination are the licensor's re-entry in the market territory, conversion of the license from exclusive to non-exclusive, or a reduction in the size of the licensee's territory.

6.20 Licensor as Component Supplier

The supply of key components by the licensor may benefit both parties. To the licensor, it is likely to be an additional source of revenue; to the licensee, an economic source or possibly his only source. On the other hand, the interests of the parties may diverge, as when the licensee finds alternative domestic or other sources, or becomes capable of manufacturing components previously purchased. Contractual provisions on this subject usually provide for close consultation and may merely establish general intention and a framework of price and delivery terms for supply arrangements to be negotiated in more detail from time to time. In some cases, the purchase of components or raw materials may be optional with the licensee.

The sale and purchase of components may have an impact on other aspects of the agreement. For example, achievement of specified purchase levels may reduce minimum royalties.

Remember that "tied sales" are a reviewable trade practice (refer to section 17.5). It is advisable to obtain a legal opinion that such an arrangement is permissible.

Production Machinery

The licensor may also be the best source for specialized production of machinery required at startup or be in a position to introduce the licensee to its suppliers. Prospective licensees should anticipate their needs and include this item in their negotiations.

6.21 Protection of Licensed Rights

Licensors are concerned to protect their intangible property rights against both the licensee and third parties. However, such protection is not solely a licensor concern. The licensee also has an interest in maintaining a relationship of trust and confidence between himself and the licensor and in that context in reassuring the licensor that the latter's underlying property rights are secure. Licensor and licensee have a common interest in protecting the licensed rights against incursions by third parties.

6.21.1 Protection of Licensed Rights Against Third Parties

Since the title to licensed rights remains in the licensor, it is his prerogative to take legal action against interlopers. He will ordinarily have an interest in doing so. However, the licensor's level of commitment to an aggressive program of protection may be lower than the licensee would desire. The licensor, after all, is located some distance away, and his economic interest in the sale of licensed products in the licensee's territory is only indirect. Moreover, the protection of intangible property rights can be an expensive and frustrating process involving many judgement calls.

Licensors may nevertheless attempt to retain the option of deciding whether or not an action for infringement of the licensed rights will be initiated. It is not uncommon to see license provisions to the effect that the licensee is responsible for costs in the event of such proceedings with damages in the event of success going in whole or in part to the licensor. Licensees are well advised to negotiate vigorously for fair and balanced treatment on these issues.

There are several ways of dealing with these matters. While an action for infringement must be conducted in the name of the licensor, actual carriage may be undertaken by either party or as a joint endeavor. The parties should anticipate their needs and clearly express their intentions. The agreement should also allocate responsibility for the expenses of litigation and entitlement to any damages which may be awarded. These points are not exhaustive of the subject. The most critical term from a licensee standpoint is the right to commence legal action in the name of the licensor to protect the licensed rights if the licensor is unwilling or unable to do so.

6.22 Title Retention and Acknowledgement of Value

Most licensors insist on a clause in the license agreement which provides that licensed rights remain the property of the licensor and that the licensee will at no time dispute his licensor's title.

Recently, licensors have also begun to demand that the licensee acknowledge the trade information of the licensor is a valuable asset and that any breach of the secrecy provisions by the licensee will result in damages to the licensor. The insertion of such a clause precludes a licensee fom asserting that the know-how of the licensor was of little or no value and facilitates a claim for substantial damages.

6.23 Confidentiality Regarding Know-How

A licensee will ordinarily be required to agree not to disclose the information, know-how or secret processes he acquires from the licensor except as necessary for the proper manufacture or distribution of the licensed products. In order to protect confidential information, the licensor sometimes demands that the licensee extract from each employee, sub-licensee and subcontractor an equivalent undertaking of secrecy and confidentiality.

Some trade secrets may be disclosed before a formal license agreement is entered into. In projecting the feasibility costs and potential profits under a licensed operation, the licensor may reveal practical know-how including, in many cases, specifications, blueprints and cost data. This is ordinarily done after the licensor is comfortable concerning the general integrity and good faith of the potential licensee. The possibility, however, that negotiations will break down after valuable know-how has been disclosed has led some corporations to follow a practice of requiring the potential licensee to sign a brief preliminary agreement which makes it clear that:

- the specifications and other know-how are being supplied for negotiating purposes only;
- information is and will remain the property of the licensor;
- the information will not be used in any way contrary to the licensor's interest;
- copies or extracts of the information may be made only with the express consent of the owner; and
- such information must be returned to the licensor on request.

Confidentiality obligations are usually intended to extend beyond the life of the license agreement. In addition to the obligation to return all technical information and data to the licensor on termination, the licensee may be required to agree not to reveal at any time, before or after termination of the license agreement, any information acquired as a result of the license relationship.

6.24 Quality Control

Quality control commitments may be relatively unimportant in a bare patent license, but they are a major concern in more complex licensing arrangements where both parties may have a vital interest in preserving goodwill and the international reputation of the licensed products.

If the licensee's output is to be identified with the licensor's own products or corporate name, the licensor will insist that the licensee maintains quality standards that do not detract from its reputation or the goodwill and market acceptance that has been built up in world markets. Where trademarks are not involved, a licensor may not insist on strict adherence to its domestic designs and specifications. This will depend on its general marketing policy.

Quality control clauses generally include the following obligations:

- to manufacture licensed products in accordance with standards, specifications and manufacturing directions supplied by the licensor;
- to provide the licensor periodically with samples for inspection;
- to make promptly any such changes in the products, manufacturing procedures or raw materials used as the licensor may reasonably request; and
- to permit inspection by the licensor of the licensee's manufacturing and warehousing facilities.

6.25 Compulsory Licensing

A patentee's monopoly is subject to certain conditions. A patentee may not abuse his rights, for example, by not working his invention in Canada within three years of its issuance or by using his patent to lessen competition outside the patent monopoly. Such abuses can result in the granting of a compulsory license to a third party to work the patent.

Compulsory licenses are also granted, almost arbitrarily, to qualified applicants in respect to patents relating to food and medicinal preparations. There is no need for an applicant seeking a compulsory license for these types of patents to demonstrate previous patent abuse. The Canadian government believes that the availability of compulsory licensing in the food and drug areas is necessary to ensure competition in these industries, thereby resulting in better access and lower prices to the public.

6.26 Most Favored Licensee Clause

Some circumstances may lead the licensee to negotiate for a most-favored-licensee ("MFL") status. This means that the licensee becomes entitled to the most favorable rate of royalty which the licensor grants to any of its licensees, although it may also apply to other terms. We have found such clauses to be the exception rather than the rule.

Generally speaking, the type of situation which best lends itself to MFL treatment is one in which the technology being licensed is part of a standardized package of technology whereby equivalent licenses are granted to many licensees. It is only where the grants are equivalent that it is possible to compare payment of royalties.

MFL clauses will primarily interest those whose licensing arrangements are likely to be custom-tailored to satisfy specific requirements. One situation where the MFL clause may be a necessity is where the licensee has agreed to a non-exclusive grant. In this case, the licensee will need such a clause to guarantee his ability to compete on an equal basis with other licensees or the licensor itself. Without such a clause in the licensee's agreement, there is no obligation under Canadian law to oblige a licensor to charge the same, or even substantially the same, royalty to every licensee.

MFL clauses may be made to apply not only to future license arrangements entered into by the licensor but also to licenses previously granted.

6.27 Applicable Language

In an international license agreement, it may be advisable to provide that the version of the agreement in a certain language is the official copy of the agreement and the one that will ultimately govern the rights of the parties. Many international license agreements provide that the English language version of the agreement is the official version.

6.28 Assignability

The question whether the licensee may freely transfer the license to another party deserves more attention than it usually receives. Almost invariably the licensor wishes to limit assignability of the license by insertion of a clause providing that the rights granted may not be assigned or transferred without the licensor's prior written consent. A supporting clause may state that any attempted assignment without such consent is to be void and shall have the effect of automatically terminating all the rights of the licensee under the agreement. Denial of the right to assign may not be indispensable in every set of circumstances. A standard ploy which the licensee may introduce in an effort to reach middle ground is to leave the consent clause as written but add that the licensor's consent is not to be unreasonably withheld. This provides the licensee with an opportunity to contest the objective reasonableness of a licensor's refusal to consent before a court.

6.29 Official Notices

The names and addresses to which official notices under the license agreement are to be directed should be clearly stated. The common alternatives for delivery of such notices are prepaid mail, telex, or personal delivery.

The parties must decide on a method of establishing the date of receipt of the notice. For example, if service is by mail, the receiving party may be deemed to have received the notice a given number of days after the notice was posted: in the case of a telex, when the sender receives the answerback code; in the case of personal delivery, on actual delivery.

As postal interruptions are increasingly commonplace, some parties insert provision that in the event of an interruption of mail service, all notices are to be delivered by telex or personal courier.

7. TECHNICAL ASSISTANCE

7.1 Nature of Technical Assistance

Technology transfers can rarely be implemented effectively by mere transmittal of documents or other material. Some direct personal interaction of the technical personnel of transferor and transferee is likely to be required. Sometimes the transferor's assistance may extend to various aspects of management or accounting. The transferee should be alert to his needs for such assistance and ensure that the documentation makes adequate provision for it on acceptable terms.

7.1.1 Technical Transfer May be Structured as Technical Assistance

Occasionally, the entire transfer arrangement takes the form of technical assistance. In such cases, a lump sum payment may still be exacted, but ongoing payments will relate to individual time inputs or achievement of definable implementation objectives rather than use of licensed rights. This arrangement may be suitable for the transfer of technology to a joint venture in which one party supplies technology as the basis for his equity participation. Although not seeking to exact a continuing royalty, he may wish to be reimbursed for the expense of diverting his own labor force.

7.1.2 Technical Assistance Usually Provided Under Separate Agreement

Technical assistance clauses may be included in the license agreement, so that the document itself may be entitled "Licensing and Technical Assistance Agreement". There is no legal requirement that these companion elements of the arrangement, the "know-how" and "show-how" as they are sometimes labelled, be dealt with in separate contracts. Such separation is the general rule, however, where technical assistance is a significant factor.

7.1.3 Terms of Agreement

The technical assistance agreement should define with great precision the nature, extent, times and places of the assistance to be provided. The process may involve sequential or overlapping phases including visits by members of the licensee's staff to the licensor's plant for on-site training, reciprocal visits by the licensor's personnel to the licensee's plant, transfer of such personnel to the licensee's staff for a sustained period, and services performed by the licensor independently in his own facility for the benefit of the licensee.

7.1.4 Payment Terms

Since technical assistance is usually in aid of a licensing or joint venture arrangement, the approach to remuneration is often one of reimbursing expenses rather than attempting to realize a profit. Thus, a typical payment provision would be one requiring the licensee to reimburse the licensor for all costs wholly attributable to assigned personnel at specified per diem rates plus travelling and living expenses. If the licensee requires technical assistance only for limited purposes during a startup period, he may take the position that such assistance is entirely supplemental to the basic transfer of technology under the license and ought to be provided at the licensor's expense. Frequently, the agreement creates a rather open-ended framework within which the licensee may call upon the licensor for assistance according to his needs but conditional upon the licensor's ability or willingness to provide.

7.1.5 Immigration Requirements

An extraneous matter to the technical services agreement, but one which must not be overlooked, is the necessity to obtain Canadian visas for foreign workers. Situations may arise in which representatives of a technology supplier may visit Canada for such a limited purpose and duration that only visitor's status is appropriate. A non-Canadian intending to work in Canada must seek either a temporary employment authorization or permanent resident status, depending on the circumstances of his assignment. It is advisable to seek advice from the Canadian immigration service or legal counsel as to the type of authorization required and appropriate procedures.

Except for special categories of persons who are exempted, including key executives transferring with a related corporate group, confirmation from a Canada Employment Centre, within Canada, that the position cannot be satisfactorily filled from the Canadian domestic work force is the first step. This confirmation may then support an application to the Canadian immigration service abroad for the appropriate visa. The confirmation of an offer of employment is issued to the corporation or other business entity seeking to employ a foreign worker, whereas the employment authorization itself is issued by the Canadian immigration service, outside of Canada, to the worker himself. Each of the provincial governments has a department that will advise commercial enterprises with regard to problems of international personnel transfers.

Once an employment authorization is obtained, it can be renewed within Canada on a yearly (or shorter) basis so long as the extension is justified by the original purpose, but usually not for an aggregate period exceeding three years. Temporary employment authorizations issued to a married person do not entitle his spouse or children to work in Canada, unless they qualify for such authorization in their own right. This is a significant difference from permanent resident status, which applies to the spouse and qualified children (under 21 at date of application) which confers the right to accept employment on all family members.

In practice, permanent resident status is obtained through a process similar to that for temporary work authorization but somewhat more rigorous and normally requiring a substantially longer period for processing. It is not appropriate unless the transferring party is being assigned to Canada for an indefinite period.

8. TAX FACTORS AFFECTING TRANSFERS TO CANADA

8.1 Tax Factors Affecting Transfers of Technology to Canada from Abroad

In this section, we summarize the Canadian taxing provisions which most often apply to technology transfers from abroad by way of licensing and technical assistance arrangements. Tax laws in the country of transfer will also come into play and may have a bearing on the transferor's preferences as to how the arrangement should be structured. For instance, he may have an opportunity to characterize the consideration which he receives as a capital gain instead of an income receipt. This characterization would probably suit his interest because capital gains are usually taxed at a lower rate than ordinary income. The Canadian transferee, on the other hand, will obtain a larger tax deduction if his payments are characterized as payments on income rather than capital account.

8.1.1 Licensee's Tax Position

A Canadian licensee will wish to deduct the consideration paid for license rights and technical assistance to the maximum extent possible for tax purposes. The deductibility of such amounts is not usually in question. They are ordinarily characterized as royalties or payments for services, and in either event are fully deductible.

There may be circumstances in which deductibility is more limited. Particularly where lump sum payments are involved, the licensee should seek professional advice with regard to tax treatment. While in special circumstances even lump sum payments for the transfer of technology may be treated as royalties paid on income account, they are more likely to be characterized as capital expenditures. As such, they are depreciable on a "straight-line" basis over the life of the license. Details on this subject may be found in Revenue Canada Interpretation Bulletin No. IT-477.

8.1.2 Licensor's Tax Position

Technology transfers should be scrutinized carefully to ensure that no amount paid by the transferee is unnecessarily or inadvertently subjected to Canadian withholding tax. Royalties paid or credited by a Canadian resident to a non-resident are subject to Canadian withholding tax. This tax is imposed at a rate of 25 percent under the Income Tax Act, but this rate is reduced to 10 percent or 15 percent for payments to persons resident in those countries with which Canada has entered into tax treaties.

8.2 Technical Services Rendered in Canada

The rendering of technical services in Canada by the employee of a foreign licensor is likely to constitute "carrying on business in Canada" within the meaning of the Income Tax Act. While under the Act the profits of such businesses are taxable in Canada at full corporate rates, the Income Tax Act is subject to the provisions of Canada's income tax treaties with other countries. Such treaties invariably provide that the commercial and industrial profits realized by a resident of the other country are taxable by Canada only if the non-resident maintains a "permanent establishment" in Canada. Most foreign licensors from treaty countries will wish to avail themselves of treaty protection by taking appropriate precautions to ensure that the activities of their employees or agents in Canada do not create a "permanent establishment".

While full discussion of the term "permanent establishment" is beyond the scope of this chapter, we suggest that foreign companies rendering technical assistance in Canada and not desiring to create a "permanent establishment" generally observe operating procedures such as the following:

1. They do not establish their own office, laboratory or plant facilities, but rather utilize the facilities of the licensee.

2. They do not enter telephone or other business listings and have no door plaques or business cards identifying themselves as a place of business in Canada; the use of telephone answering services is not out of the question but is rarely required.

3. The employees and agents of the licensor are not given general authority to contract for the licensor and do not purport to exercise any such authority.

These procedures may vary depending upon the definition of "permanent establishment" found in the particular tax treaty which Canada has negotiated with the country in which the licensor is resident. In those cases where no tax treaty exists, virtually any business activity of the licensor's employees or agents in Canada will be found to constitute carrying on business, with the result that any resulting profits will be taxable in Canada.

Although the licensor rendering technical assistance may not be required to submit to Canadian taxation, Canadian residents who make payments to non-residents for services rendered in Canada are required to withhold and remit 15 percent of such payments to the Receiver General of Canada.

At the end of each year, the licensor must file a tax return, establish to the satisfaction of Revenue Canada that it is entitled to the benefit of a tax treaty, and claim a refund of the amount withheld. Licensors should be made aware that one of the grounds for obtaining such a refund is that the payments from which amounts were withheld represent industrial and commercial profits and not royalties, i.e. payments for technical services and not for the use of intellectual property. This is one of the reasons for preparing technical assistance agreements and devoting attention to the characterization of the services being rendered as separate from the transfer of technology provided for in the license agreement.

8.3 Services Rendered by the Licensor in its Own Country

It is not uncommon for a transferor of technology to render some services to the transferee in the transferor's home country, for which a separate service charge may be levied. Such services will not constitute carrying on business in Canada, and payments for such services will not be taxed on that basis. If the services are managerial or administrative in nature, the payments may attract Canadian withholding tax as discussed under the next heading. Withholding tax is also levied on payments by a resident of Canada to a non-resident in connection with services of an industrial, commercial or scientific nature without reference to the status of such services, where payment is based in whole or in part on:

- the use to be made of the services or the benefit to be derived from same; or
- the production or sales of goods and services; or
- profits.

Payments for the transferor's services ordinarily do not come within one of these categories.

8.4 Management or Administration Fees

Management and administration fees paid or credited by a Canadian resident to a non-resident are subject to a withholding tax equivalent to the withholding tax on royalties. It is our experience that the services rendered in assistance of technology transfers between unrelated parties are not usually of a management or administrative nature. However, for cases in which such services are provided, it is important to know that the withholding tax is not dependent on the situs of the services but applies whether or not the services are performed in Canada. Under an exempting provision, a payment for services that include management or administration will not be subject to withholding tax in Canada if either:

- the services performed by the non-resident were performed in the course of a business carried on by him that included the performance of such services for a fee and the parties were dealing at arm's length; or
- the payment was made to reimburse the non-resident for reasonable expenses incurred on behalf of the Canadian residents.

9. JOINT VENTURES

9.1 "An Organizational Form Whose Time Has Come"

There is a large and rapidly increasing body of writing on the subject of joint ventures. A recurring theme is that joint venture enterprise has grown rapidly since World War II and promises to grow even more rapidly in the future. It is said to be "an organizational form whose time has come" and is predicted to become an "increasingly prominent feature on the corporate landscape" of the 1980s and 1990s. At the same time, the writers of books and articles explore the special requirements for joint venture success. These include: careful partner selection to ensure a "good fit", thorough planning and documentation, willingness to accept cultural differences, practical working arrangements with regard to control, and maintenance of mutual trust.

9.2 Reasons for Joint Venture Enterprise

As previously noted, joint ventures are formed for a variety of reasons. In his recent book, Strategies for Joint Venture Success,* Peter Killing lists four reasons which will serve to focus attention on underlying motives. Of these, the last two are likely to be especially applicable to the small and medium-sized businesses to whom this chapter is directed. The four reasons are as follows:

- ". Government insistence.
- The project is too large, financially, for either party to handle alone.
- Neither firm has all of the skills, typically technical and marketing, to make a success of the business on its own.
- Only by combining forces can the joint venture partners achieve satisfactory economies of scale in research and development, production, or marketing".

9.3 Possible Impact of Foreign Law

United States and European Economic Community anti-trust laws may have an impact on joint ventures with parties based in those jurisdictions (refer also to section 6.12). Primary responsibility for compliance with such laws will fall upon those parties. Canadian participants should be aware of their existence, however, and be guided by specialized counsel in the foreign jurisdiction.

9.4 Meaning of "Joint Venture"

There is no precise meaning for the term joint venture. In the broadest sense, any arrangement in which two or more businesses combine resources for some definable undertaking is a joint venture. The Canadian legal system provides great flexibility, and imposes very few restrictions as to the form which joint ventures may take.

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* Strategies for Joint Venture Success, J. Peter Killing, Croom Helm Ltd., 1983.

9.5 "Non-Equity" Joint Ventures

A wide variety of co-operative arrangements including licensing, technical assistance agreements, contract manufacturing and even sales agency and distributorship arrangements are sometimes loosely categorized as "non-equity" joint ventures. The term suggests at the least some vital contribution from each party and a degree of continuing active involvement. We describe later a joint venture of the non-equity variety based on contract manufacturing and marketing agreements.

9.6 "Equity" Joint Ventures

It is more common to speak of "equity" joint ventures in which each party has a proprietary interest and a direct share of risk. This kind of business organization may itself take a variety of forms, but these may be segregated broadly into two categories, the incorporated joint venture and the unincorporated joint venture.

9.7 Meeting the Test of Net Benefit to Canada

Joint ventures may require approval of the Government of Canada under the Investment Canada Act. Such approval is based on finding that the venture is likely to be of net benefit to Canada taking into account the criteria of benefit specified in the Act. It is in the nature to meet a number of these criteria for benefit such as Canadian participation and positive impact on "productivity, industrial efficiency, technological development, product innovation and product variety in Canada". Most joint venture proposals will readily pass the test of net benefit. In certain key industries, joint ventures with Canadian partners may prove to be the most acceptable means of entry for the foreign investor.

9.8 Complex Nature of the Joint Venture Implementation

It is a more complex exercise to work out the parameters of a joint venture and integrate its many details into a comprehensive set of documents than it is to settle the terms of a single license or technical assistance agreement. We emphasize that properly implemented technology transfers are the product of interaction among the business principals and skilled professional advisors. No technology transfer is a do-it-yourself project.

9.9 Preliminary Documentation

As negotiations move past the exploratory phase, non-binding memoranda or terms of agreement and exchanges or proposed language can assist the parties to make progress toward agreement. To an even greater degree than in licensing, so-called "standard" agreements should be taken only as points of departure. In some instances, a preliminary agreement is concluded to perform a feasibility study of the proposed project on the understanding that if specified results are obtained, a definitive joint venture agreement will be negotiated.

9.10 Designing the Joint Venture Agreement

The elements of drafting discussed in connection with license agreements apply equally to joint venture agreements. Clarity and absence of ambiguity are critical. Defined terms and schedules may be used to good effect.

A joint venture agreement usually utilizes a series of recitals to describe the parties, with reference to the experience or expertise which each brings to the venture, possibly their past dealings or the circumstances which have lead to their joining forces and possibly the purpose of the venture. The latter is more likely to be touched upon in the recitals and comprehensively described in one of the early operative clauses.

Since joint ventures by their nature involve some relatively limited or well-defined business activity, it is important that purpose and scope be defined with some precision. Naturally these may change with the passage of time and events, but changes in basic intentions should, in turn, be well documented to avoid misunderstandings.

Designing the scope and purpose provision may prove to be more demanding than anticipated. The attempt alone may have the effect of exposing unsuspected differences in perspective and act to prevent later discord.

9.10.1 The Dominant Issue: Control

The predominant issue in forming and operating an equity joint venture, whatever its form, is likely to be the issue of control. Since each party is heavily committed to the venture in terms of capital, expertise, expectation of profit and risk, an attempt is usually made to work out some form of shared control. The joint venture contributor of key technology is likely to have a lively interest in the supervision of its use and further development. Indeed, the ability to participate in control probably accounts largely for his choosing joint venture operations instead of granting a license. The party who would otherwise be in the position of a licensee probably has practical operating experience and may be the major contributor of plant and equipment as well as market knowledge and significant elements of the venture's technology base. It is obvious that he will seek to play a significant if not predominant role in control. Shared control is not the only option, as one might be initially inclined to believe. There are joint ventures in which one party is given control either absolutely or, more likely, under the overall direction of some joint body which restricts itself to long-term strategy. There are others in which the parties agree to delegate a large measure of control to the general manager and maintain a "hands off" policy in relation to day-to-day affairs. Studies indicate that, statistically, such "dominant parent" and "independent" ventures have a lower failure rate than those where control is shared. They appear to be well suited to ventures with a short time frame where decisive management is critical to success.

If one party is primarily a passive investor and the other an "operator", wisdom may dictate that operational control should rest in the latter. Where equity participation is unequal, the larger equity owner(s) may demand a predominant voice in control and management. Nevertheless, shared control is the norm, and the mechanisms for exercising shared control are a central feature of the agreements and other constituent elements of most joint ventures. The joint venture party located in the host country should not underestimate the significance of its contributions as issues of equity participation and control are negotiated. The issue of control arises at different levels. Difficulties more frequently arise in relation to short-term policy decisions and day-to-day operations than in relation to general policy.

Although our principal focus is on corporate organization and contractual terms, it is well to note that control may be influenced by a variety of other factors. A distinction has been made between the "negative control" which characterizes the defensive mechanisms embodied in formal agreements and "positive control", which encompasses all the techniques of leadership.

9.11 Other Considerations; Ancillary Agreements: Licensing

Among the many other important matters to be considered by parties contemplating a joint venture are the definition of their respective contributions of time, money, technology and tangible assets, future funding, the mechanisms by which each will be compensated, record keeping and access to records, duration, and rights to termination. These considerations provide subject matter for the basic joint venture agreement. They also give rise to a variety of ancillary agreements covering such matters as management services, licensing, technical services, financing, and marketing.

Of all these, the licensing agreement is likely to be the most important since the transfer of technology may be at the very foundation of the venture. License arrangements in the context of joint ventures are not unlike arms-length license agreements. A good rule of thumb is to give as much attention to the transfer of technology to the joint venture, as would be given if the parties were not otherwise associated. Indeed ,the interests of the parties may in many respects be the same as they would be in an arm's-length licensing arrangement. The main difference is the leverage, in terms of control, which the license gives to the technology transferor. The other party may perceive it to be his duty to assume the role of defender of the joint venture in negotiating the license agreement.

The parties sometimes attempt to entrench the principle of fair and objective dealing between either of them and the venture by providing in the joint venture agreement that all such dealings must be on an arm's length basis.

The material which follows assumes, for the most part, a two-party joint venture with essentially equal equity participation. This viewpoint is adopted for convenience and because it represents the majority of actual joint ventures in the field of manufacturing. We believe that most of the principles discussed may be applied to multiple-party and unequal-equity ventures.

9.11.1 Incorporated and Unincorporated (Contractual) Equity Joint Ventures

The incorporated joint venture is one in which each party becomes a shareholder in a corporation formed specifically to conduct the business of the joint venture enterprises. Implementation usually begins with the preparation of a pre-incorporation shareholders' agreement which sets out general intentions, a specific program for moving into the corporate structure and some contractual provisions which govern the relationship of the parties to the venture throughout its existence.

Once the joint venture corporation has been organized and given its own life, the relationship of the parties is governed not only by their original contract but by the corporation's articles of incorporation and by-laws and the entire body of statutory and non-statutory corporation law.

The unincorporated or contractual joint venture is one in which each participant retains its own corporate identity. The relationship as co-venturers is defined entirely by contract, which may account for the fact that theorists tend to regard this form as the "pure" joint venture.

9.12 Preference for Incorporated Joint Ventures in Manufacturing

The business person is not concerned with purity of form but with finding the most appropriate vehicle for carrying out his or her business purpose. We have found that incorporation usually proves most suitable for a manufacturing venture. The vast majority of manufacturing joint ventures of which we are aware, are incorporated.

This preference appears to be based on both business and legal factors. A manufacturing venture is not usually a short term or highly restricted undertaking. The corporation has an indefinite life and creates a familiar framework for the financing and administration of an ongoing business enterprise. The notion of "corporate image" as a means of identifying the business and its products to suppliers, financing institutions and consumers alike, emerges as a significant psychological factor. A corporation is a convenient vehicle for the creation and exploitation of goodwill in the broadest sense and for the exploitation and protection of trademarks, for instance, in a narrow legal sense. The basic legal consequence of incorporation is limited liability, that is, in the absence of contractual guarantees the shareholders are not individually responsible for the corporation's obligations.

9.13 Structural and Legal Considerations for the Incorporated Format

It may well be asked why parties who are free to create a joint venture and govern their relationship by a simple contractual arrangement should impose upon themselves the vast array of legal and administrative complexities which are inherent in the corporate form of organization. As shareholders, their dealings with third parties are not direct in the legal sense but are exercised through the "organs" of the corporation, namely, its officers and directors. Neither party has the right, as such, to enter into contracts for the venture but may only do so as authorized by resolution of the board or other appropriate proceedings of the corporation. To some, this may be a natural and orderly way to run a business; to others it may seem unnecessarily cumbersome.

In an incorporated joint venture, property of the venture is property of the corporation and consequently once-removed from direct ownership. Equity is represented by shareholdings. Expenses of the venture are the expenses of the corporation and not its shareholders, an elementary fact with important tax consequences. Finally, the involuntary termination of a corporate joint venture may be more complicated than termination of a contractual relationship.

Most apparent drawbacks of incorporation can be overcome or accommodated. The modern corporation is in many respects an admirably streamlined and flexible vehicle for any business enterprise, including joint ventures. The indirect holding of equity through shares and the necessity of acting through organs of the corporation, which make for a degree of complexity, also give the corporation its unique flexibility.

Because of its importance, our main focus in the following pages is on the design and structure of incorporated joint ventures. Many of the principles discussed are equally applicable, however, to ventures of the unincorporated variety. Let us first take a closer look at the uses of unincorporated joint ventures.

9.14 Uses of Unincorporated or Contractual Joint Ventures

In Canada, unincorporated or contractual joint ventures are most common in the energy and natural resource sectors. They are also used for many construction and engineering projects. Typically, a Canadian corporation bidding for participation in a project which requires a combination of technologies will engage the assistance of one or more suppliers of foreign technology to contribute its knowledge and expertise on a temporary, unincorporated basis. While there is no legal limitation on use of unincorporated joint ventures in manufacturing, they are less common in that context for the reasons previously noted.

It would appear generally that the more limited the contemplated venture is in scope and duration, the more likely it is that the parties will favor the unincorporated format. Such projects tend to generate a preference for maintenance by the parties of their separate identities within the venture. This factor is significant where it appears desirable for one of the parties to assume general management or the primary interface with third parties. A practical result of maintaining separate identities is that the parties may be able individually to deduct their respective shares of the expenses of the venture for tax purposes.

Many unincorporated joint venture projects involve one or more exploration or experimental phases and possibly, depending on outcome, a more permanent phase. For the long-term or permanent phase, the parties may turn to the incorporated format.

Unincorporated joint ventures have the advantage that they may be meticulously tailored to the particular need. The relationship is fully defined by contract, obviating the complexities of corporate structure discussed earlier. This is not to say that it is a simpler task to design and document an unincorporated joint venture than the corporate form. To the contrary, the agreement governing an unincorporated joint venture is likely to be more comprehensive because it must provide within its own framework for matters which are dealt with in articles of incorporation and by-laws in the case of a corporation. We have found that in many instances greater importance is attached to the definition of the scope and limitations of the venture, accounting procedures, and management provisions.

9.15 Unanimous Shareholder Agreement

Modern corporations' statutes provide a device known as the unanimous shareholder agreement which can be used to reduce the structural complexity of a corporation for joint venture purposes, while retaining its many attractive elements.

There has also been some doubt about the degree to which courts would enforce the promises made by joint venturers in shareholder agreements, apart from obligations flowing from their status as shareholders in the joint venture corporation. For example, under the common law of corporations, the discretion of directors cannot in any way be fettered. This translates into the proposition that one shareholder cannot contract with another that his nominee directors will necessarily vote in a predetermined manner.

This rule has created a dilemma for lawyers attempting to create corporate joint ventures in which the will of the shareholders, as expressed in their agreements, will always shape decisions of the board. There may even be some doubt under general corporation law as to the effectiveness of an agreement to vote shares in a particular manner. Issues of this nature have been the subject of extensive litigation in the U.S. They can now largely be resolved by the use of unanimous shareholder agreements.

The effect of a unanimous shareholder agreement is to restrict the powers which the directors would otherwise have to manage or supervise the management of the joint venture business to any extent which the agreement provides. The agreement may, among other things, provide its own mechanisms for amendment and arbitration of disputes. Indeed, the shareholders may preempt the functions of the board altogether if they so choose and thereby assume direct responsibility for management. This may merely reveal the need for a management body comparable to a board of directors, leading to a decision to leave the board intact but with its powers circumscribed by the agreement.

There are no special legal requirements for the formation of a unanimous shareholder agreement except that it must be a written agreement among all the shareholders of the joint venture corporation. Persons who are not shareholders may also be parties.

It must be remembered that the benefits of a unanimous shareholders' agreement flow by operation of law from the statute under which the joint venture corporation is formed. As at March 1, 1984, Ontario, Manitoba, New Brunswick, Quebec, Saskatchewan, and federal corporations' statutes have such provisions. Their provisions in this regard are almost identical to each other.

The flexibility of the unanimous shareholders agreement brings with it a need for extreme care in designing and drafting the agreement and supporting documents because shareholders assume the liabilities as well as the powers taken from directors. These range from filing requirements to unpaid wages. For this and other reasons some joint venturers may find the traditional delegation of substantial powers to a managing board of directors to be in their best interest.

9.16 Incorporation

Formation of a corporation for the purpose of the joint venture enterprise may precede the signing of a shareholders' agreement, which will then make reference to its name, capital structure and other characteristics. Alternately, the joint venture agreement may take the form of a pre-incorporation agreement which spells out as part of the understanding that a corporation is to be formed with specified characteristics. Some key points are set out below:

- The corporate name must not be confused with the name of an existing business. A computer printout evidencing an availability search for the proposed name must accompany the Articles of Incorporation.

- The corporation may do business under one or more trade or divisional names by registering such names.

- Most Canadian corporations' statutes require that some proportion of the board of directors be "resident Canadians", a term usually defined to include immigrants from other countries during the period of three years that they must be resident in Canada to qualify for citizenship plus an additional year (for a total of four years from date of landing), to allow for Canadian citizenship to be obtained. Foreign joint venture partners should be alerted early to the fact that one or more of their representatives on the board of the incorporated joint venture must meet this qualification. The provinces of Quebec and New Brunswick have no such requirements. In Alberta, the requirement is that at least half of the corporations' directors must be resident Albertans. No Canadian corporations' statute has a citizenship requirement for corporate officers.

- Corporations formed under the Ontario and Federal Business Corporations Acts have all the legal powers of a "natural" person and consequently require no objects clauses in their Articles of Incorporation. Current practice is to define the purpose and scope of the joint venture by agreement and not include objects clauses in the Articles.

Authorized capital provisions may be as simple or as sophisticated as required. In the simplest case, the corporation may issue an unlimited number of shares of any designated class. All shares are without nominal or par value. There is no requirement for a minimum paid-in capital, although the tax implications of "thin capitalization" should be noted (refer to Section 9.19).

All issued shares must be registered. Shares are not validly issued unless fully paid for in money, property or past services. The joint venture agreement should contain details of initial capitalization in terms of the numbers and classes of shares to be issued and the nature of the consideration to be paid for them. The requirement of the corporation law that all issued shares be fully paid for, and related provisions, mean that the parties must agree in advance on the money value of all technology and other intellectual property, all tangible property, and services for which shares are issued.

The Articles of Incorporation of a closely-held corporation contain provisions referred to as "private company clauses" to help eliminate certain filing requirements pursuant to securities legislation. These clauses usually include a restriction on the transfer of shares without the consent of the shareholders or directors. Such clauses must be co-ordinated with provisions in the joint venture agreement regarding the transfer of interests.

The corporate businesses of both shareholders and directors may be transacted in meetings or by the signing of consent resolutions. This makes it convenient for shareholders at a considerable distance from each other, to transact and formally document their corporate business.

9.17 Board of Directors

While shareholders may give written proxies to others to vote their shares, directors must act personally. Canadian law does not provide for the election of alternate directors.

Shareholder agreements usually provide that all shares will be voted so as to ensure each party's agreed representation on the board of directors. There are a variety of devices by which such equality can be assumed. This question will have lesser importance to the degree that the shareholders themselves assume powers of the board by a unanimous shareholder agreement. However, the board is rarely eliminated altogether, and because of its powers to manage the affairs of the corporation, care must be taken in organizing its structure and operations.

In the common two-partner, equal-equity venture, the director provisions usually contemplate a board of even numbers on which each party has equal representation. Such an arrangement has the effect of giving each a veto over policy decisions affecting the venture. The same effect is obtained in multiple-party joint ventures by providing in the agreement and again in the corporations's by-laws, that all resolutions of the board, or those dealing with specifically designated matters, are to be decided by a special majority or unanimous vote of all board members. Such provisions are examples of devices for exercising negative control.

Once elected, directors have the power to manage the affairs of the business which the joint venture participants choose to leave with them. Quorum requirements can ensure that the representatives of each participant are present at board meetings and approve of proposed actions. Canadian law allows great flexibility in establishing quorum and voting requirements.

9.18 Officers

Whatever the risks of conflict, it is very common for both joint venture parties to be represented at the level of day-to-day management. The reasons for this are obvious. Where technologies are being joined, there is probably a practical need for continuous operating liaison. In addition, each senses a need to protect its vital interests.

Corporate officers are usually drawn from the ranks of the parent corporation, sometimes leading to competition to ensure equal representation. We have seen joint venture agreements in which each second officer in a long pecking order was to be a designated representative of one party and the remainder designated by the other. A similar approach is to divide officers by position into roughly equal groupings, with one party nominating or supplying the incumbents of one group of positions. It has even been suggested that the right to nominate for each group of positions might be rotated annually.

Such formulas appear logical but prove unsatisfactory. There is no ideal solution. Common sense in relation to the specific needs of the venture, the persons most capable of performing various functions, and the legitimate interests of each party are the essential ingredients. Some venturers have found merit in the selection of a general manager unrelated to either of them, if not at start-up, then after the venture has reached a stable phase. We noted earlier that studies indicated a higher statistical likelihood of success where some measure of independent management is present.

9.19 Capitalization of the Joint Venture Corporation

Initial capital must be paid into a corporation to complete its organization. Each joint venturer subscribes for its proportionate amount of the share capital for cash consideration or for property or services to which a specific monetary value is attributed by board resolution or provisions of the unanimous shareholder agreement. The necessity of valuing the non-cash consideration is dictated by both corporate law and tax considerations. A simple and painless way to establish the basic equity relationship of the venturers is to cause the newly-incorporated corporation to issue its common shares in the appropriate proportion for a relatively nominal consideration before substantial amounts of property have been acquired or contributed. Additional capital may then be raised by way of loans or the issuance of special shares to the co-venturers or third parties.

Joint venture participants may structure their investment in virtually any way they wish, by creating shares in the capital stock of the corporation with a wide variety of rights and conditions, including some or all of the following:

- voting rights, either generally or on specific matters;
- fixed, discretionary or preferential dividends; redemption and retraction rights at redemption amounts either fixed in advance or as fixed at the time of redemption or retraction;
- rights to participate in the assets of the corporation upon its dissolution; and
- the right to elect a certain number of directors.

A useful device for allocating rights among parties to a joint venture is the issuance of shares of different classes or of different series within the same class.

Similar flexibility may be enjoyed through the use of debt instruments. Shareholder loans may be documented by simple promissory notes bearing fixed interest rates or more complex agreements containing repayment provisions based upon earnings or performance. Debt securities can be designed to be convertible into equity at the option of the lender or the corporation.

9.20 Existing Corporations

Many joint venture corporations result not from the creation of new corporations but from investment by a new participant in an existing corporation. The existing corporate structure and obligations are additional factors to be considered in planning the structure and operation of the corporation as a joint venture. Canadian law provides for virtually unlimited flexibility in amending articles of incorporation and corporate by-laws.

9.21 Transfer of Technology

Our emphasis is on the acquisition of foreign technology for use in Canada. It is a given that if such a transfer takes the form of a joint venture, key technology will be supplied by the foreign participant. There are several ways in which this transfer can be implemented. For instance, technology may be transferred outright in exchange for shares or debt of the joint venture compay. Most often, the foreign joint venture partner will opt to transfer his technology pursuant to a license agreement. Licensing usually proves to be the most effective way of safeguarding his technology, even against the corporation in which he is a participant. Licensing arrangements within joint ventures were discussed in section 9.11.

The combination of a licensing arrangement with a joint venture raises the question whether, and to what extent, the technology supplier is to be allowed to take money out of the venture other than by way of a distribution of after-tax profits by way of dividends. He may argue that his equity position in the venture should be treated quite separately from his license of technology and that the latter should carry the same royalty which would be charged to unrelated parties. Even if this proposition is accepted, the other party should ensure that the technology supplier makes a full capital contribution.

The difficulty is that initial capitalization may be modest, with the real prospects of the business depending on the intangible inputs of each party. In such a case, it may be possible to make a strong argument that the initial disclosure of technology should be an outright transfer for a determined value with no additional royalty charge. An alternative argument is that the royalty, whether for present or future technology, should be at a lesser than arm's-length rate, although the transferor may have difficulty justifying such lesser rate for tax purposes in his own country.

9.22 Further Capital Requirements

Participants in a joint venture should establish at the outset a set of plans and policies for future funding. Although initial contributions and available institutional financing may provide for foreseeable needs, the possibility is always present that additional direct equity contributions may be required. The ratio in which they may agree to participate in future funding is a matter of negotiation.

A question requiring equal deliberation and clear expression in the joint venture agreement is what consequences will follow from the failure of one party to make a contribution when required to do so. The following are some approaches to this problem:

- the unpaid amount may become a charge on future profit distributions to the defaulting party.
- the unpaid amount may be advanced by the other party at his option and treated as a payment on behalf of the defaulting party, whereupon it is secured by a charge on the latter's profit distributions or equity in the venture.
- following a lapse of time to allow full opportunity for performance, the defaulting party may be required to dilute or forfeit his interest in the venture or sell the same to the non-defaulting party or the venture at a predetermined bargain price.

9.23 Distribution of Earnings

Prospective joint ventures tend to focus their attention at the outset on organizational matters and startup activities. It should not be forgotten that the purpose of the venture is the realization of profit and that differences may arise regarding the distribution of earnings. Each participant may have a different position in the inevitable tension between immediate distribution, with its obvious attractions, and retention of earnings for reinvestment and sustained growth. In a corporate joint venture, the matter may be left to the discretion of directors, where it normally resides under Canadian law.

If the venture provides for "negative" control by each party with its built-in potential for deadlock, the result of failure to establish a minimum distribution policy in the joint venture agreement may be the absence of distributions until the problem is resolved. Joint venture agreements often provide for the current distribution of some proportion of earnings or of all earnings subject to a reserve for capital growth It may be further agreed that the level of earnings distributed will vary according to the predetermined standards of performance.

9.24 Termination

A limited-term joint venture may run its course and terminate according to its terms. Any joint venture may be terminated amicably or go through a substitution of parties upon a decision by one or both parties to change business direction. The most common example is the negotiated purchase by one party of the other's shares. Finally, termination may result from a disagreement between the parties.

9.25 Substituting a Party

A participant in a joint venture is rarely indifferent to the identity of the other party or parties. The obvious reason is that the venture is founded upon the identification by each of suitable co-venturers, an assessment by each of the other's contribution and some measure of trust and compatibility. The question of party substitution may well be a question of venture survival. At the least it will evoke concerns about the protection of intellectual property and general maintenance of confidentiality.

The question of party substitution usually arises when one participant seeks, for whatever reason, to transfer its interest to a third party. An aspect of the issue sometimes overlooked is the potential for indirect partner substitution by way of change of control in one of the parties. Such changes are difficult to control at the joint venture level. However, various devices are available including automatic termination or forced buyout of the equity of the party undergoing a change of control at the option of the other party.

9.26 Restrictions on Transfer of Shares

Federal corporate law does not require any restriction on the transfer of shares, but it is common to include a provision requiring directors' approval for such transfers. In our experience, joint ventures invariably restrict the transfer of one party's shares without consent of the other.

Persons acquiring shares which are subject to a unanimous shareholder agreement are deemed to be parties to the agreement. The agreement will usually provide for share certificates to bear a legend stating that they are subject to its provisions.

9.27 Deadlock

The consequence of effective "negative" control is the development of a deadlock in the event of conflict. Some students of joint ventures have pointed out that the potential for deadlock may be seen as positive, on the basis that risk of deadlock and consequent paralysis of the venture may operate as an incentive to amicable solutions. It is also argued that provisions for breaking deadlock situations may have the effect of a self-fulfilling prophecy, inducing the possibility or frequency of deadlock votes. The counter argument is that because of the serious potential consequences of disagreement, it is important to choose a mechanism for breaking deadlock situations.

Such mechanisms may operate at different levels. For instance, the corporation's by-laws may provide for one director to have a casting vote. To make such a provision as fair as possible, the power to exercise a vote may be passed between nominees of the parties on a rotating basis or vested in a "neutral" board member. More drastic mechanisms for dealing with resolving deadlock situations are those which result in a buy out of one participant by another, introduction of a new party, or winding up.

9.28 Right of First Refusal

Most business people are familiar with the term "right of first refusal". There are two basic approaches to granting such rights. One is to require the participant wishing to sell to give the other the right to match third-party offers. This is often thought to be a drawback of the right of refusal device because third parties may be reluctant to make offers subject to a prior right of refusal. This may not be a deficiency in the joint venture context, however, where it is rarely in the participant's interest to facilitate sales to third parties. Another difficulty of the right of first refusal lies in establishing the bona fides of the third-party offer.

The second approach is to provide a formula for determination of the buyout price. It is then provided that one participant may offer his interest in the venture to the other at the predetermined price and on such other terms as the agreement provides. If this offer to sell is not accepted, the offering party is free, for some period, to sell to a third party on the same basis. Establishing a formula for fixing the buyout price may present difficulty. Some alternatives are book value, capitalized earnings, appraised value or some variation of these. Another choice is to leave valuation to an independent third party.

For some reason, right of first refusal clauses are among those most often found to be badly drafted. The idea seems to be prevalent that brief mention of the concept itself is sufficient to create all necessary rights and obligations. This is not the case. The specific intentions of the parties must be spelled out in detail. It is particularly important to identify the extent, or limitations, of the rights and to provide appropriate mechanisms for administration.

9.29 Joint Venture Corporation Purchase of its Own Shares

Either of the devices referred to in the preceding paragraph may be structured in such a way that the joint venture corporation itself is the purchaser. This arrangement is a convenient way to maintain proportionate joint venture interests for the remaining parties in a multiple-party venture.

9.30 The Buy-Sell Clause

The put-sell or buy-sell arrangement is a traditional device for orderly disengagement. Under this procedure, one party gives notice of a desire to buy or sell his interests in the joint venture and proposes a price per share for such a transaction. The party receiving such an offer must then agree to purchase the shares of the offeror or sell its own shares at the same price. Buy-sell provisions are usually very detailed, providing for terms of payment, mechanics of share transfer, settlement of obligations between the selling shareholder and the corporation, and other details.

Buy-sell provisions are so common that there is a tendency to introduce them without sufficient forethought. They work fairly if the parties are equal in their proportionate interests in the venture, financial capability and legal status. In the event of significant inequality in any of these areas, the weaker party may be severely disadvantaged. If the weakness is financial, the bidding partner may propose an unreasonably low price knowing that the other is more likely to sell than to buy. If the foreign party may only purchase subject to Government approval, he is obviously at a disadvantage.

9.31 Arbitration

Arbitration is often more attractive to international joint ventures than resort to the courts of either jurisdiction. It may be structured on an ad hoc basis, as where each party chooses an arbitrator and the two so chosen choose a third; or reliance may be placed in an arbitral institution such as the International Chamber of Commerce (ICC), the Institute of Arbitrators (London), the American Arbitration Association, the International Center for the Settlement of Investment Disputes (ICSID) and the Inter-American Commercial Arbitration Commission.

If the ad hoc approach is selected, reference to one of the more widely accepted set of arbitration rules is essential. Among these are the rules of the ICC, ICSID, UNCITRAL (U.N. Conference on International Trade Law). The following is a checklist of the most important items requiring consideration in designing arbitration provisions:

- description of arbitral issues;
- enforcement of award;
- appointment of arbitrators;
- language;
- governing law;
- entry of judgement;
- time limits;
- neutral arbitrator versus tri-party panel of arbitrators;
- costs; and
- place of hearings.

Do not assume that arbitration is necessarily preferable to court decision-making. If the foreign joint venture partner can be persuaded to accept a Canadian forum and choice of law, there is a strong likelihood that leaving the ultimate resolution of disputes to the courts will be more satisfactory than arbitration. Court rules and procedures require no special definition by the parties. Canadian courts are usually accessible in a reasonable period of time.

The assistance of legal counsel is most important in all matters relating to the resolution of disputes by legal process, including arbitration.

9.32 Winding-up

If the differences between the parties cannot be resolved by informal negotiations or by mechanisms provided for in the joint venture, one party to a joint venture may apply to the court, under the authority of the incorporating statute, for an order appointing a receiver to wind up the corporation. The Ontario statute provides that the court may make such an order in situations, among others, where it is satisfied that a unanimous shareholder agreement entitled a complaining shareholder to demand dissolution after the occurrence of a specified event which has occurred, or it is "just and equitable" for some reason other than bankruptcy or insolvency that the corporation be wound up.

Winding-up by court order is a last resort. The proceedings may be long, bitter, and expensive. They almost certainly attract unwanted publicity. Moreover, the outcome is likely to be less satisfactory to either party than a negotiated or arbitrated settlement.

9.33 Effect of Termination

However remote termination may seem at the outset, adequate provision must be made for eventual termination. The most important matters to be anticipated are the further use of the name given to the venture, distribution of property (including the return of technology), and maintenance of confidentiality.

10. TAX FACTORS AFFECTING CANADIAN JOINT VENTURES

In this section we summarize those features of the Canadian system of taxation which have been found to be of most interest to the participants in a Canadian joint venture. For the Canadian business person it may serve as a refresher and checklist; for the foreign investor a useful introduction.

In Canada, income taxation at both federal and provincial levels must be considered. To keep this summary as concise as possible, we consider Ontario as representative of the provinces, with occasional reference to others.

The material presented here is accurate as of February 24, 1986. In Canada, taxation is a field in which frequent change is the rule rather than the exception. There is no substitute for close consultation with professional advisors on tax matters as joint ventures are structured and implemented.

10.1 Basis of Taxation

10.1.1 Residence

A corporation resident in Canada is subject to Canadian income tax on its worldwide income. A corporation incorporated and carrying on business in Canada is presumed to be so resident. Based on these principles, a Canadian joint venture corporation is subject to the basic scheme of Canadian corporate income taxation as described below.

Even if the Canadian joint venture as such is unincorporated, it is common for the foreign investor to form a Canadian subsidiary corporation which becomes the actual joint venture participant. The same basic principles of Canadian corporate income taxation apply to such a corporation.

10.2 Rate of Corporate Taxation

10.2.1 Full Rate

The tax rates discussed below are applied to the corporation's income, calculated generally according to ordinary accounting principles, plus one-half of capital gains.

The current full rate of corporate income tax applied on income earned in a province is calculated by adding together the net federal rate of 36 percent and the applicable provincial rate, which varies from province to province. In Ontario, for example, a corporation subject to the full corporate rate pays the net federal income tax rate of 36 percent and Ontario income tax of 15.5 percent for a combined federal and Ontario tax rate of 51.5 percent. February 1986 budget proposals calling for phased-in reductions to 1989 are shown in Table 1, "Taxation and Tax Incentives".

10.2.2 Reduced Rate

A Canadian-controlled private corporation is entitled to take a small business deduction which results in a lower rate on a portion of its income. If the foreign voting control of a Canadian joint venture corporation does not exceed 50 percent, then the corporation may qualify as a Canadian-controlled private corporation and obtain this reduced rate. Another condition is that the corporation seeking the reduced rate must not be directly or indirectly controlled by a corporation whose shares are listed on a Canadian stock exchange. It is a considerable selling point to some potential foreign investors that they may obtain up to a full 50 percent of the voting shares of a Canadian corporation without displacing the small business deduction.

The small business deduction reduces the federal tax rate by 20 or 21 percent. The provinces also give a small business deduction, so the combined effect of the federal and provincial rules must be taken into account.

This reduced rate is applied to the first $200,000 of active business income earned in Canada in the year.

10.2.3 Special Rate for Manufacturing and Processing

A corporation which carries on eligible manufacturing or processing activities in Canada may be entitled to a tax credit which:

- reduces the federal tax rate by 6 percent generally and 5 percent for income subject to the small business deduction; and
- reduces the Ontario rate by one percent.

Thus, the current combined federal and provincial rate in Ontario for a corporation eligible for the manufacturing and processing tax credit but not for the small business deduction is 44.5 percent. To the extent that the small business deduction is also available, the combined federal and Ontario rates for corporations entitled to both the manufacturing and processing tax credit and the small business deduction, is 20 percent.

The term "manufacturing and processing" is not defined. Certain activities, such as fishing, farming, logging, construction and a number of resource related activities, are specifically excluded. Further, a corporation is not entitled to a manufacturing and processing tax credit if less than 10 percent of its gross revenue for the year from active businesses carried on in Canada are from manufacturing or processing goods in Canada or from selling or leasing goods it has manufactured or processed in Canada. Generally speaking, if a corporation's activities fall within the everyday meaning of the words "manufacturing" or "processing", it will qualify for the tax credit.

10.3 Dividends out of Income Subject to the Small Business Deduction

Dividends paid by a corporation out of income which has benefited from the small business deduction attract a special 12 1/2 percent tax.

10.4 Investment Tax Credit

Manufacturers may claim a deduction from tax called an "investment tax credit" equal to 7 percent (in some regions) of the cost of buildings and equipment to be used in the manufacturing or processing of goods.

Such credits, which are earned but cannot be claimed in the year, may be carried forward for seven years.

10.5 Capital Gains Realized by the Venture

One-half of realized capital gains are included in computing a taxpayer's income which, if the taxpayer is a corporation, are then taxed at the full corporate rate. Capital gains arise when the proceeds realized on the disposition of capital property exceed the cost of the property plus any costs of disposition.

10.6 Depreciation and Recapture

Taxpayers are entitled to depreciate the cost of assets acquired by them for the purpose of producing income from property or business. In Canada depreciable property is categorized by class and a maximum rate of depreciation (called "Capital Cost Allowance") is prescribed in respect of each class. In general, depreciation is calculated on a diminishing balance basis but there are exceptions to the rule where the "straight line" method of depreciation is applicable. Where the taxpayer disposes of an asset on which he has claimed depreciation he will "recapture" the amount of depreciation previously deducted and will be required to include that amount in income.

In certain instances, a taxpayer may be entitled to an accelerated rate of depreciation. In the case of manufacturing and processing machinery and equipment, for example, a taxpayer may depreciate 25 percent of the cost in the year of acquisition, 50 percent in the second year and the balance in the third year. Ontario's depreciation on such machinery and equipment is 50 percent on a "straight-line" basis.

10.7 Withholding Tax on Royalties

If joint venture arrangements include a license from the foreign participant to the venture under which royalties are payable, a so-called "withholding tax" will be payable to Canada as such fees are paid. This is the same withholding tax which applies where the licensor is an unrelated party and is discussed in Section 8.1 of this chapter.

10.8 Withholding Tax on Management Fees

A foreign joint venture partner sometimes expresses interest in extracting compensation from the venture on a pre-tax basis in the form of management or administration fees. A discussion of management and administration fees appears in Section 8.4.

10.9 Withholding Tax on Dividends

Dividends paid by a Canadian corporation to a foreign shareholder are subject to a Canadian non-resident withholding tax which is set at 25 percent under the Income Tax Act but reduced to 15 percent for payments to countries with which Canada has entered into tax treaties. These countries are listed in section 5.1.4.

10.10 Expenses of the Joint Venture

For the incorporated joint venture, the expenses of doing business are deducted from the corporation's revenues, in the process of calculating the income which is subject to tax, according to generally accepted accounting principles. In this connection, special note should be taken of the following:

10.10.1 Research and Development Expenditures

Expenditures of a current and capital nature may be written off in the year in which they are incurred, or may be capitalized and deducted, either in whole or in part, in any future year. A minimum percent tax credit is available for all R&D, with a 35 percent credit applicable to small businesses. (See Table 2, "Taxation and Tax Incentives"). The February 26, 1986 budget has proposed that the tax credit earned by small businesses for current expenditures on R&D continue to be fully refundable beyond 1988.

10.11 Partnership

If joint venturers decide to carry on business as partners, the income (or loss) of the business will be calculated at the partnership level as if the partnership were a separate person.

All applicable deductions from the partnership business must be taken at the partnership level. However, liability for tax on partnership profits flow through to the members in accordance with their entitlement to the profits or losses of the partnership.

One type of expense which must be claimed at the partnership level is depreciation. This may be disadvantageous if one of the partners does not wish to claim maximum depreciation in the year. One of the reasons parties contemplating an unincorporated joint venture usually choose to combine their resources on a non-partnership basis is to ensure that deductions for tax purposes are available at the participant level. Since the Income Tax Act contains no specific rules regarding computations of the income of such an unincorporated, non-partnership joint venture, it would appear that each joint venture participant is free to calculate his income and losses from the joint venture separately.

10.12 Tax consequences of Transferring Joint Venture Equity

Under the Income Tax Act, one-half of the gain realized by a non-resident on the sale of his interest in a Canadian joint venture will generally be included in computing the non-resident's income for Canadian tax purposes. The non-resident may, however, escape Canadian tax altogether if he is resident in a country which has a tax treaty with Canada whereby such gains are exempt. Under the terms of the Canda-U.S. tax treaty, for example, a resident of the U.S. who sells his interest in a Canadian joint venture will not be taxable in Canada on any gains realized provided that he has no "permanent establishment" in Canada in the year of the sale.

10.13 Deductibility of Interest on Loans from Joint Venture Participants

If the parties to a corporate joint venture intend to capitalize the corporation partly by way of direct interest-bearing loans, they should be aware of a possible limitation on the joint venture corporation's ability to deduct the interest expense. Simply stated, to the extent that interest on funds borrowed from non-arm's length lenders exceed more than three times the equity of the joint venture corporation, the joint venture corporation is not entitled to deduct the interest expense on the excess.

LABOUR SUPPLY AND REGULATIONS

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LABOUR SUPPLY AND REGULATIONS

1. THE CANADIAN LABOUR FORCE

Canadian workers are highly skilled and well educated. Compensation costs are as much as 35 percent lower than in the U.S.; and labour legislation is fair and progressive, benefiting both employers and employees.

Canada also offers a number of incentive programs and services to employers who wish to develop and utilize available human resources.

In 1985, the Canadian labour force averaged 12.6 million (57.4 percent men and 42.6 percent women), representing 49.9 percent of the total population and 65.2 percent of the population aged 15 or over. Its distribution was in accordance with the general population and is shown in Table 1.

TABLE 1

GEOGRAPHIC DISTRIBUTION OF LABOUR FORCE - 1985

Region	Number (,000)	Percent
Atlantic Provinces	977	7.7
Quebec	3,181	25.2
Ontario	4,787	37.9
Prairie Provinces	2,263	17.9
British Columbia	1,431	11.3
TOTAL	12,639	100.00

Source: Statistics Canada, Canadian Statistical Review.

The service-producing sector accounted for the largest proportion (69.0 percent) of the labour force. The industrial distribution is shown in Table 2.

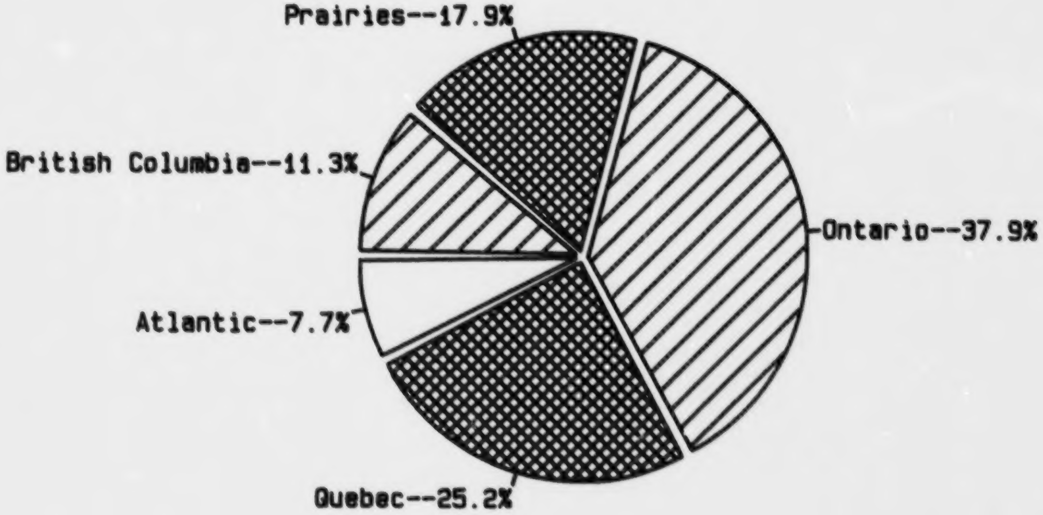
TABLE 2

INDUSTRIAL DISTRIBUTION OF LABOUR FORCE - 1985

Industry	Number (,000)	Percent
Goods Producing	3,806	30.1
Agriculture	525	4.2
Other Primary	344	2.7
Manufacturing	2,203	17.4
Construction	733	5.8
Service Producing	8,726	69.0
Transportation, Communication, Utilities	952	7.5
Trade	2,196	17.4
Finance, Insurance, Real Estate	670	5.3
Community, Business, Personal Services	4,034	31.9
Public Administration	874	6.9
Unclassified	107	0.9
TOTAL	12,639	100.00

Source: Statistics Canada, The Labour Force.

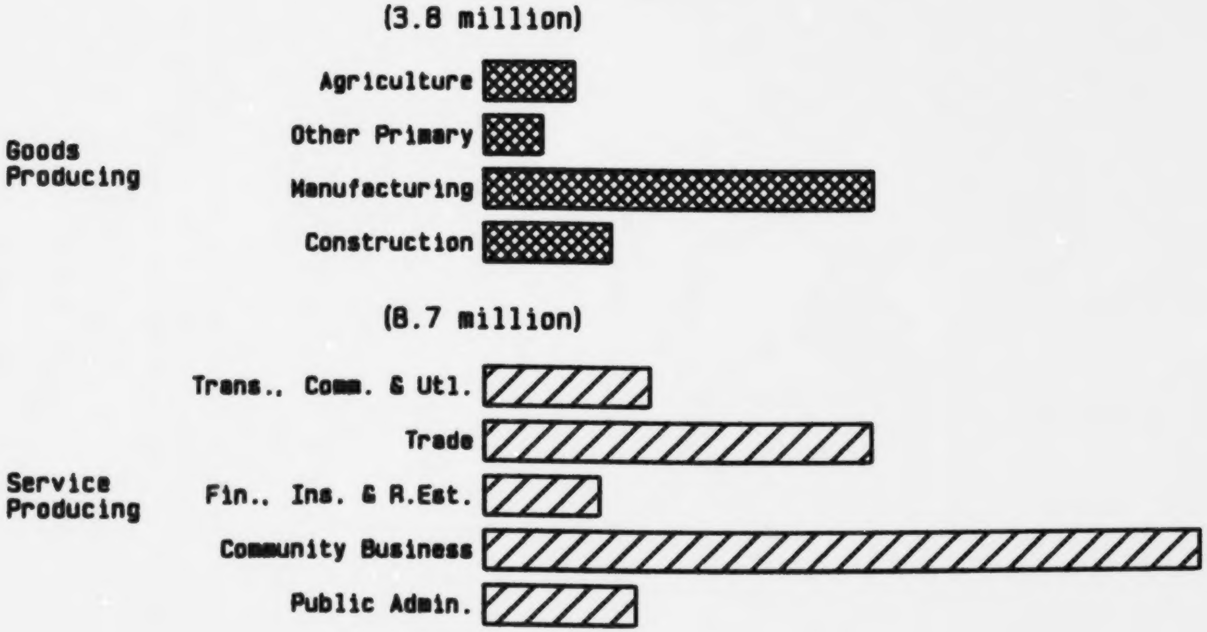
Geographic Distribution of Labor Force – 1985



Total Labour Force
1985 - (12.6 million)

Source: Statistics Canada,
Canadian Statistical Review.

Industrial Distribution of Labour Force – 1985



* Unclassified Labour – (0.1 million)
Source: Statistics Canada,
The Labour Force.

The Canadian labour force is well educated. In 1985, 88.1 percent had undertaken education beyond grade 8; 37.1 percent had at least some post-secondary education; and 13.0 percent possessed university degrees. Table 3 provides an educational profile of the labour force.

TABLE 3

EDUCATIONAL ATTAINMENT OF LABOUR FORCE, 1985

Number of Completed Years	Number (,000)	Percent
0 - 8	1,506	11.9
9 - 13	6,444	51.0
Post-secondary including University	4,690	37.1
University Degree Only	1,648	13.0

Source: Statistics Canada, The Labour Force.

1.1 Comparative Wages

International comparisons of wages and salaries are difficult to calculate on any standardized basis due to many factors including exchange rates, different hours of work, different educational and professional standards and different levels of social benefits provided by both the state and the employer. However, it is helpful to compare wage rates and total compensation in neighbouring countries which share similar standards of living and have similar professional standards. Below in Table 4, the annual salaries and total compensation of four occupation groupings (clerical, blue collar, white collar, and professional) in eight North American cities (3 in Canada, and 5 in the the U.S.) are compared. Generally, total compensation costs in Canada fall below those in the U.S., in some instances up to 35 percent.

International comparisons of average hourly earnings and compensation in manufacturing for 1984, are shown in Table 5. Hourly compensation is defined as: all payments made directly to the worker - pay for time worked (basic time and piece rates plus overtime premiums, and cost-of-living adjustments); pay for time not worked (vacations, holidays, and other leave); all bonuses and other special payments; the cost of payments in kind - before payroll deductions of any kind; and, employer contributions to legally required insurance programs and contractual and private benefit plans. In addition, for some countries, compensation is adjusted for other taxes on payrolls or employment (or reduced to reflect subsidies), even if they are not for the direct benefit of workers, because such taxes are regarded as labour costs. However, hourly compensation does not include all items of labour costs. Recruitment, employee training, and plant facilities and services - such as cafeterias and medical clinics - are not covered because data are not available for most countries. For consistency, compensation is measured on an hours-worked basis for every country.

TABLE 4

COMPARISON OF WAGES AND BENEFITS IN SELECTED CANADIAN AND U.S. CITIES ($CDN) 1984

	Machinist		Production Manager		Electrical Engineer		Secretary	
	Salary	Salary & Benefits	Salary	Salary & Benefits	Salary	Salary & Benefits	Salary	Salary & Benefits
Montreal	28,000	33,040	47,000	55,460	36,000	42,280	19,950	23,541
Toronto	27,000	32,258	44,000	51,612	37,000	43,401	19,450	22,815
Vancouver	30,600	35,649	50,200	58,483	40,500	47,183	21,400	24,931
Boston	33,132	42,975	51,006	66,155	43,738	56,728	23,389	30,335
New York	34,584	44,855	52,063	67,526	41,624	53,986	23,389	30,335
Chicago	37,759	48,776	48,628	62,827	44,267	57,193	23,917	30,901
Dallas	37,541	46,288	51,138	63,053	45,324	55,884	23,917	29,490
Los Angeles	35,772	44,536	48,231	60,047	47,703	59,390	26,031	32,409

Source: Montreal Urban Community, Office of Economic Expansion, Decision: Montreal.

TABLE 5

AVERAGE HOURLY EARNINGS AND COMPENSATION IN MANUFACTURING 1984

	Ave. Hourly Index ($C)	Index Canada = 100	Ave. Hourly Compensation ($C)	Index Canada = 100
Canada	11.16	100.0	14.24	100.0
United States	11.89	106.5	16.30	114.5
United Kingdom	5.69	51.0	7.57	53.2
Federal Republic of Germany	7.07	63.4	12.37	86.9
Japan	7.04	63.1	8.22	57.7

Source: U.S. Department of Labour, Bureau of Labor Statistics.

1.2 Work Stoppages

Table 6 shows a significant reduction in time lost to work stoppages in Canada from 1980 to 1984. Overall, there was a 57 percent decrease in time lost. While significant declines were experienced in all industrial sectors, the greatest reductions were in the primary industries (mining and oil and gas), which in 1984 amounted to only 4 percent of the 1980 total, and in public administration which in 1984 amounted to only 10 percent of the 1980 total. As a percentage of total work days, time lost to work stoppages is miniscule at 0.16 percent, and is significantly less than time lost to sickness and accidents.

TABLE 6

TIME LOST TO WORK STOPPAGES

	1980	1981	1982	1983	1984
		(thousand person-days)			
Jurisdiction					
Maritimes	1327	262	206	440	246
Quebec	3952	1470	1281	2313	1116
Ontario	1676	2259	2207	760	1414
Prairies	677	457	767	57	154
B.C.	390	2787	988	769	825
Sub-total	8022	7235	5449	4339	3755
Federal	954	1644	347	105	116
TOTAL TIME LOST	8976	8879	5796	4444	3871

TIME LOST TO WORK STOPPAGES

Industry	1980	1981	1982	1983	1984	% of Working Time, 1984 (%)
		(thousand person-days)				
Primary	1152	938	272	196	47	.07
Manufacturing	3137	4644	1691	1385	2356	.49
Construction	1107	43	2200	244	213	.18
Transportation & Utilities	729	1514	566	275	550	.27
Trade, Finance & Services	2150	1021	636	2032	635	.03
Public Administration	700	717	251	312	71	.04
TOTAL TIME LOST	8975	8877	5616	4444	3872	0.16

Source: Labour Canada, Strikes and Lockouts in Canada

Chart I shows the variation in the average per capita number of days lost, due to work stoppages, for major industrial sectors in 1984. The average number of days lost ranged from 0.1 in public administration, trade, finance and service industries, to 1.3 in manufacturing.

1.2.1 International Comparisons

International comparisons of strikes and lockouts are often difficult and inaccurate because of differing social, political and organizational structures. Data collection and statistical methodologies regarding labour disputes differ widely among countries. There are variations in the definitions used by individual countries, as well as many differing minimum reguirements for the duration and size of a stoppage. Some countries do not include strikes based on political motives. Work slowdowns, which are generally not reported, are a more common bargaining tactic in some countries such as Japan. A comparason of U.S. and Canadian methodologies highlights some of these problems.

Canada-U.S. Comparisons

Canadian reporting of work stoppages is more comprehensive than in the U.S., which does not report on strikes involving less than 1,000 workers or those stoppages lasting less than one shift, regardless of the number of workers involved. If Canada were to report only labour disputes involving 1,000 or more workers in the same manner, the number of person days lost would drop from a reported 4,443,960 to 1,034,560 in 1983. The percentage of estimated working time lost would fall to approximately 0.09 percent from the reported 1983 figure of 0.19 percent. A similar trend is visible when U.S. methodologies are applied to Canadian data on a per thousand employee basis.

TABLE 7

PERSON DAYS NOT WORKED DUE TO STRIKES AND LOCKOUTS PER THOUSAND EMPLOYEES

	National Data		Application of U.S. Methodology to Canadian Data	
	1983	1984	1983	1984
Canada	438	312	208	127
United States	194	90	194	90

Source: U.S. Department of Labour;
Labour Canada, Strikes and Lockouts in Canada.

In general, labour disputes in Canada result in a small amount of time not worked: an average (over the last five years) of less than three-tenths of one percent of total working time per year.

Overall, more than 90 percent of all collective agreements are reached without a work stoppage.

The level of strikes and lockouts in Canada is declining. In 1984, the number of workers involved in work stoppages was down 43 percent from the previous year, and was almost 60 percent below the number in 1979. The aggregate number of person-days not worked in 1984 declined 13 percent from the previous year, and was the lowest since 1977.

Strikes and lockouts are heavily regulated in Canada. Work stoppages during the term of a collective agreement are prohibited, and all disputes that arise during the life of a contract must be settled through a grievance procedure and/or binding arbitration. These legal requirements do not exist in the U.S. Other legislative and administrative provisions assist in the resolution of bargaining disputes: compulsory conciliation (provided by government at no cost) is designed to assist in the negotiation process.

A decentralized approch to collective bargaining is one of the most distinctive features of Canadian labour relations. Due to the federal/provincial division of powers, the federal government exercises jurisdiction in labour relations matters over approximately 10 percent of the labour force, with the remaining 90 percent falling within various provincial authorities.

Unlike most European union structures, the Canadian labour federations (such as the Canadian Labour Congress) have no bargaining authority. Most bargaining in Canada takes place between a single employer and a single union. This allows individual firms to exercise a large degree of influence on their own labour terms and climate, and reduces the potential of national-level or industry-wide stoppages.

The decentralized union structure allows Canadian unions to be more flexible and responsive to local issues and concerns than some counterparts in other industrialized nations. As well, there is increasing consultation by labour groups with business and government in such activities as the Canadian Labour Market and Productivity Centre, the Ministerial Task Force on Program Review, the Royal Commission on the Economic Union and Development Prospects for Canada, and the Ontario Government Task Force on Microelectronics.

Generally, labour relations in Canada are characterized by fidelity to contractual and statutory regulations, with a low incidence of illegal, political, or violent strike activity.

2. DIVISION OF LEGISLATIVE POWERS BETWEEN FEDERAL AND PROVINCIAL JURISDICTIONS

Both the Parliament of Canada and the provincial legislatures have the power to enact labour laws. The jurisdiction of the provincial and federal governments arises from the Constitution Act, 1867, Sections 91 and 92. Judicial interpretation of these sections gives provincial legislatures major jurisdiction, with federal authority limited to a narrow field.

Provincial authority is derived from the "property and civil rights" subsection of the Constitution Act, 1867. The right to enter into contracts is a civil right, and since labour laws impose certain restrictions on contracts between employers and employees, they fall within provincial authority as property and civil rights legislation. Provinces also have the right to legislate as to "local works and undertakings".

Federal jurisdiction in the labour law field arises from the right to regulate certain subjects expressly assigned to Parliament by Section 91 of the Constitution Act, 1867, or expressly excepted from provincial jurisdiction by Section 92. These subjects are of a national, international or interprovincial nature. In addition, Parliament has jurisdiction to regulate works wholly within a province which have been declared by Parliament to be works "for the general advantage of Canada or for the advantage of two or more of the provinces", as, for example, grain elevators, feed mills and uranium mines. By virtue of its exclusive power to regulate certain works and undertakings, Parliament has the incidental power to enact labour laws relating to those works and undertakings.

The Canada Labour Code applies to:

(1) Works or undertakings connecting a province with another province or country, such as railways, bus operations, trucking, pipelines, ferries, tunnels, bridges, canals and telegraph, telephone and cable systems.

(2) All extra-provincial shipping and services connected with such shipping, e.g., longshoring.

(3) Air transport, aircraft and airports.

(4) Radio and television broadcasting.

(5) Banks.

(6) Defined operations of specific works that have been declared to be for the general advantage of Canada or of two or more provinces, such as flour, feed and seed cleaning mills, feed warehouses, grain elevators and uranium mining and processing.

(7) Federal Crown corporations, where they are engaged in works or undertakings that fall within Section 91 of the Constitution Act, 1867, or where they are an agency of the Crown, e.g., the Canadian Broadcasting Corporation and the St. Lawrence Seaway Authority.

The jurisdiction of Parliament is generally limited to the above industries, with certain possible additions arising from subsequent judicial decisions.

In addition, Parliament has exclusive jurisdiction to pass laws dealing with the Yukon and Northwest Territories. Parliament has enacted legislation for local government in each territory, granting power over property and civil rights and matters of a local and private nature. Accordingly, the territorial governments have virtually the same legislative powers, with regard to labour laws, as do the provinces.

Labour standards legislation has been enacted by the territorial councils of the Yukon and Northwest Territories in most fields. Labour standards ordinances, modelled on the Canada Labour Code, Part III (Labour Standards), with modifications to meet the particular requirements of the territories, went into force July 1, 1968. The ordinances were revised in 1971 in the Yukon and in 1974 in the Northwest Territories. The ordinances established minimum standards for hours of work, wages, weekly rest-days, annual vacations and general holidays for employees in the two territories. Previous to the enactment of the Northwest Territories ordinance, the only labour standards applicable were those established by mines legislation. Standards in the Yukon ordinance replaced those previously laid down in the Yukon Labour (Minimum Wages) Ordinance, the Labour Provisions Ordinance and the Annual Vacations Ordinance.

In each territory, the ordinance is administered by a labour standards officer appointed by the Commissioner. The Northwest Territories legislation provides for a Labour Standards Board, consisting of five members and having responsibility for hearing appeals of decisions of the labour standards officer. Under the terms of the Yukon ordinance, the Commissioner must appoint an Advisory Board that is representative of the interests of the employers and the employees.

The ordinances apply to employers and employees in any work, undertaking or business of a local or private nature in the territories. The Northwest Territories ordinance excludes domestic servants in private homes, trappers, persons engaged in commercial fisheries and managers, superintendents or persons who exercise management functions. Members or students of designated professions may be excluded by regulations. The Yukon ordinance applies generally, but certain classes of employees are excluded from Part I, governing hours of work.

3. EMPLOYMENT, PLANNING AND INDUSTRIAL ADJUSTMENT SERVICES

The Canada Employment and Immigration Commission (CEIC) offers a number of programs and services to the investor in the development and utilization of human resources designed to encourage employers to meet their needs through the Canadian Job Strategy (see Business Operations). Canada Employment Centres, established at local labour market focal points, provide a job-matching service for employers who register job vacancies. Advice on labour market trends and conditions is dispensed to both employers and employees. Canada Farm Labour Pools fill employers' vacancies with permanent, casual, or temporary agricultural labour.

For employers wishing advice on Human Resource Planning, the CEIC has consultants, who work with business on a one-to-one basis, as well as business seminars, for groups of employers. The consultants advise companies on how to establish and maintain human resource plans and suggest solutions to any identified human resource problem. The CEIC, in conjunction with some provinces, has developed seminars which are offered to groups of employers. Similar seminars have been developed and are offered by the Federal Business Development Bank. These seminars provide information and methods for use in planning human resources, optimizing the use of existing staff and projecting skill requirements for future personnel.

A third available service is the Industrial Adjustment Service in which workers and management are encouraged to work together to resolve labour adjustment problems resulting from plant closure, relocation, expansion or technological change. Employee/management committees are formed to work through the particular situation, and are assisted by consultants. The private sector and the CEIC share the costs of the committees.

In instances when particular skills are not available either locally, or in other areas of Canada, the CEIC can assist the employer to recruit and hire non-Canadian workers.

4. MINIMUM WAGES

Minimum wage legislation is in force in all federal, provincial and territorial jurisdictions, and covers employees, including those who are paid on other than a time basis, such as pieceworkers, and those paid mileage rates. Rates vary according to jurisdiction, and currently range between $3.50 and $4.25 per hour. Table 8 shows the applicable rates for each of the 13 jurisdictions.

In addition, there are special rates which apply to part-time workers, students, young workers, trainees, inexperienced workers and various other classes of workers. Details regarding minimum wages are available from Labour Canada, Ottawa, Ontario, K1A 0J2.

TABLE 8

MINIMUM WAGE RATES BY JURISDICTION

Jurisdiction	Rate
Federal	$3.50
Alberta	$3.80
British Columbia	$3.65
Manitoba	$4.30
New Brunswick	$3.80
Newfoundland*	$4.00
Nova Scotia	$4.00
Ontario	$4.00
Prince Edward Island	$4.00
Quebec	$4.00
Saskatchewan	$4.50
Northwest Territories	$4.25
Yukon Territory	$4.25

* Sixteen years of age and over.

Source: Labour Canada, Canada Employment and Immigration Commission

5. MINIMUM WORKING AGE

As with wages, a minimum working age is set by individual jurisdictions. The Canada Labour Code and various provincial Employment Standards Acts, Safety Acts, Education Acts and Welfare Acts set out minimum working ages, according to the type of work to be performed. A summary of minimum working-age legislative provisions, by jurisdiction, is available from Labour Canada, Ottawa, Ontario, K1A 0J2.

6. HOURS OF WORK

In October 1984, weekly hours of work in Canada averaged 36.8 hours for office workers and 39.5 hours for non-office employees. Preliminary figures suggest no change for 1985. Five-day workweeks are overwhelmingly the norm, with 98 percent of office and 92 percent of non-office workers on that schedule in 1984.

There are provisions for standard hours of work per day and per week, set out in various pieces of legislation for each of the provinces, territories and in the Canada Labour Code. The standards governing the workday and workweek set out maximum hours for which regular wages can be paid. Additional work time must be paid in overtime, at stated rates However, there are some exceptions. In addition, at least one rest day must be scheduled per week. A summary of the relevant legislation, by jurisdiction, is available from Labour Canada, Ottawa, Ontario, K1A 0J2.

7. ANNUAL VACATIONS

Legislative provisions in each of the provinces and territories and the Canada Labour Code provide for a minumum of 2 weeks annual vacation per year. Vacation pay is generally set at a minimum of 4 percent of annual earnings. A list of minimum vacation entitlements in each of the 13 jurisdictions is available from Labour Canada, Ottawa, Ontario, K1A 0J2.

8. STATUTORY HOLIDAYS

Federal, provincial and territorial legislation set out a minimum number of statutory holidays. Only Prince Edward Island has no legislative provision for paid holidays. Statutory holidays range in number from 5 to 10, depending upon jurisdiction. These, however, are the minimum, and actual experience suggests that the average number of paid holidays is well in excess of these figures, ranging up to 23 days. According to a federal government survey, 83 percent of office workers and 89 percent of non-office employees received between 10 and 13 paid holidays annually in 1983-84. The minimum number of paid holidays, by jurisdiction, is available from Labour Canada, Ottawa, Ontario, K1A 0J2.

9. PENSIONS

Enacted in 1966, the Canada Pension Plan has provided workers and/or their families with a basic level of income protection in the event of retirement, disability or death. Paid workers between the ages of 18 and 70 have access to the plan regardless of location or occupation. (Quebec has a separate comparable plan.) The plan works by a system of contributions and benefits. Each time an employee is paid, 1.8 percent of the salary to a maximum (determined by Revenue Canada) is deducted at source by the employer, and entered into the plan. The employer contributes a matching amount. At age 65, the employee is eligible to receive benefits, even though he or she may still be working. Or, the employee may opt to defer benefits to age 70 and continue to contribute. At age 70, no further contributions can be made.

10. MATERNITY PROTECTION

Legislation in all jurisdictions, except the two territories, provides for a period of absence from work for expectant mothers, varying from 12 to 18 weeks. In most provinces, an employee is entitled to leave and job security if she has been continuously employed by her employer for at least one year. All laws require the employee to produce a medical certificate, but there are some provisions for exclusions. Four provinces, Nova Scotia, Prince Edward Island, Quebec and Saskatchewan, also have legislation dealing with paternity and/or adoption leave. A fuller description of maternity protection and parental leave is available from Labour Canada, Ottawa, Ontario, K1A 0J2.

11. HUMAN RIGHTS, FAIR EMPLOYMENT PRACTICES AND LABOUR CODES

Human rights provisions, fair employment practices, equal pay and anti-discrimination laws are all embodied in the Canada and Provincial Labour Codes, and the various Human Rights Codes. A number of laws provide the aggrieved employee with a choice of either initiating court proceedings, or making a complaint under the pertinent legislation. As a last resort, all Acts provide for prosecution in the courts. Discrimination as to race, religion, colour, creed, sex, age and other factors is not tolerated.

12. TERMINATION

Employees of Canadian businesses may be terminated for cause, such as incompetence or incapacity. As well, terminations or lay-offs can occur due to lack of business, reorganization or redundancy. Termination may be subject to legal interpretation and argument, inasmuch as it may be contrary to human rights and anti-discrimination legislation.

The Canada Labour Code, the legislative instrument for the federal jurisdiction, and labour codes in all provinces except New Brunswick, require that the employer give notice of termination to individuals. In five provinces, the employee is under an equal obligation to notify the employer before quitting. Advance notice of projected termination of groups is required under the Canada Labour Code and in 5 provinces. Details of the various termination requirements for individuals and groups, by jurisdiction, are available from Labour Canada, Ottawa, Ontario, K1A 0J2.

13. UNEMPLOYMENT INSURANCE

About 95 percent of the workers in Canada are protected by unemployment insurance (UI). To be insurable, workers must be employed by the same employer for at least 15 hours a week or must earn at least $99 (as of January 1, 1986) a week (minimum required earnings are set in the fall of each year and minimum hours of work determined by legislation). Neither sole proprietors of a business nor workers over the age of 65 can insure their employment.

Employers deduct workers' unemployment insurance premiums from their pay and send them to Revenue Canada, along with the employers' share of the contribution. In 1986, workers pay $2.35 for every $100 of weekly insurable earnings up to a maximum of $495 per week. Employers pay $3.29 for every $100 of their employees' insurable earnings.

New employers should not delay remittance of deductions until they receive their employer account number. A cheque made payable to the Receiver General of Canada should be sent to the local District Taxation Office by the 15th day of the month following the date on which an employee was put on the payroll.

An accompanying letter should give the employee's name and address and all particulars relating to income tax, Canada Pension Plan contributions and Unemployment Insurance premiums.

The maximum benefit rate paid to claimants is 60 percent of their average weekly insurable earnings. This average is calculated on earnings received in the last 20 weeks of insurable employment, or, for people with less than 20 weeks of work, on the average of those weeks. In 1986, the maximum weekly benefit is $297 (the maximum weekly benefit changes each year).

14. WORKERS' COMPENSATION

All jurisdictions have worker compensation programs and funds to provide benefits for workers suffering work-related injuries and diseases. These funds are supported by the employer at compulsory rates set for each industry and situation by the various provincial Workers' Compensation Boards.

15. OCCUPATIONAL SAFETY AND HEALTH

Each province has legislation, procedures and measures to promote and ensure occupational safety and health which are, for the most part, similar to those of the federal jurisdiction. Inspections of construction sites, industrial plants and other potentially hazardous sites are carried out by the various provincial authorities.

16. FRINGE BENEFITS

In addition to paid vacations and holidays, a large number of other non-legislated fringe benefits are commonly provided by Canadian businesses. Some benefits which are not available to individuals (except perhaps at much greater cost) are provided by the employer, sometimes on an employee/employer cost-sharing basis, and relate to such items as insurance plans, supplementary health and dental care plans, as well as salary continuation plans (e.g., pensions, sick leave, supplementary medical care and long-term disability).

Other benefits generally provided are: paid daily rest periods (coffee breaks), other time off (such as for bereavement, birth of a child, and other personal reasons), overtime (aside from that legislated), rights of call-back and stand-by and severance pay.

17. COLLECTIVE BARGAINING AND INDUSTRIAL RELATIONS

In 1983, union membership in Canada stood at 3.7 million. This represented 30 percent of the non-agricultural workforce. Some 39 percent of members belong to international unions headquartered outside Canada.

The regulations with respect to collective bargaining are found in a collection of provincial and federal Labour Relations Acts and Labour Codes. Labour codes in all jurisdictions guarantee the right to representation by a trade union, following a certification process outlined in legislation. Bargaining in good faith is a notable feature of the system; refusal to do so constitutes unfair labour practice, and is subject to prosecution. The various jurisdications administer their respective acts, mainly through labour relations boards.

TABLE 9

UNION MEMBERSHIP AND DENSITY IN SELECTED COUNTRIES

Countries	Membership (in thousands) (1981)	As percent of Wage and Salary Earners (1981)
Australia	2,994	55.8
Canada	3,487	35.3
Japan*	12,520	29.7
Sweden	3,055	88.8
United Kingdom	12,182	57.5
United States	22,396	24.7
West Germany**	9,227	41.1

* 1983.
** 1982.

Source: Labour and Labour Issues in the 1980's, Labour Canada submission to the Macdonald Royal Commission, December 1983, Keizai Koho Centre.

Collective agreements, which in all jurisdictions must be of at least one year's duration, commonly involve wages, fringe benefits and all manner of working conditions. Generally, unions have the right to strike and employers the right to lock out. However, these rights are subject to stringent regulations. No strikes or lockouts are permitted while a collective agreement is in force. Statues in some jurisdictions remove the right to strike for certain groups of employees under any circumstances. Work stoppages by non-unionized employees are not legally sanctioned, nor are strikes pertaining to union recognition.

Before a strike or lockout, conciliation under the auspices of the government is mandatory. Questions or grievances arising as to the application or interpretation of provisions within a current agreement are settled through arbitration or adjudication.

The Canadian Labour Congress (CLC), the largest of Canadian labour federations, represents some 2.1 million workers, or about 58 percent of organized workers in Canada. While the CLC is the voice through which organized labour generally makes known its positions on various matters, labour federations have no authority for national collective bargaining.

17.1 Mediation and Conciliation Services

17.1.1 Federal Jurisdiction

The federal government, through Labour Canada, provides third-party assistance for the resolution of labour disputes and promotes industrial peace and cooperation in the federal private sector. The mediation and conciliation services are available to employers and unions operating in the federal private sector, subject to the jurisdiction of the Canada Labour Code Part V.

TABLE 10

DEGREE OF UNION ORGANIZATION WITHIN CANADIAN INDUSTRY, 1982

Industry	Unionized Workers (percent)
Public Administration	68.7
Construction	61.8
Transportation, Communication, Utilities	54.0
Fishing and Trapping	45.5
Manufacturing	44.3
Forestry	39.3
Mines, Quarries and oil wells	32.9
Service Industries	26.3
Trade	9.0
Finance	3.0
Agriculture	0.2

Source: Statistics Canada, Corporations and Labour Unions Returns Act, 1982 Part II.

The mediation and conciliation services offered by the federal government assist in the prevention and settlement of industrial relations disputes and in the resolution of labour-management conflicts by appointing conciliation officers, conciliation commissioners and conciliation boards, mediators, and Industrial Inquiry Commissions. Labour Canada also investigates requests made to the Minister asking his consent to complain to the Canada Labour Relations Board over alleged unfair labour practices related to collective bargaining.

The mediation and conciliation service appoints arbitrators and arbitration board chairmen to arbitrate grievance disputes during the term of collective agreements. It appoints adjudicators to hear and adjudicate complaints of unjust dismissals lodged by employees not subject to collective agreements.

17.1.2 Provincial Jurisdictions

In addition to the federal mediation and conciliation services, most provincial governments have similar services available to employers and employees in the provincial private sector.

18. APPRENTICESHIP AND TRADE QUALIFICATIONS

All provinces have programs for the training and certification of specific tradespersons. In addition, the CEIC contributes to the classroom training aspects of these programs.

19. THE CANADIAN JOBS STRATEGY

The federal government and the provinces have worked together to develop a labour market strategy, defined by the following five principles.

The principles state that training and job creation must:

- focus on the real, continuing needs of the labour market with greater emphasis on small business and entrepreneurship;
- allow flexibility to meet changing regional and local needs, with room for innovation;
- provide simpler, less confusing and more accessible programs, with clearly defined objectives;
- recognize the shared responsibilities of the federal government, the provinces, and the private sector; and
- extend equal opportunities for all Canadians, particularly those at a disadvantage in the labour market.

The Canadian Jobs Strategy builds on these principles. It provides an opportunity for Canadians to focus their energies on the immediate problems and the long-term challenges in the labour market. Many Canadians face severe disadvantages in the labour market, or are more severely affected by changing technology and economic conditions. These groups include:

- the long-term unemployed;
- young people who are out of school and unable to find work;
- the growing number of women re-entering the labour market;
- workers needing skills training to avoid layoffs or job displacement;
- workers in communities suffering severe economic decline, who need new opportunities for long-term employment.

Continued consultation, at all levels, will ensure that the strategy remains responsive to local and regional needs. Local advisory councils, representing community leaders from business, labour and voluntary groups, will be established across Canada. Working with federal and provincial representatives, the councils will identify changing needs and help implement programs at the local level.

Six programs have been created to meet immediate needs and offer a framework for national action:

- Skill Investment
- Job Entry
- Job Development
- Skill Shortages
- Community Futures
- The Innovations program

19.1 Skill Investment

To cope with change, workers and employers must be equipped with new skills and flexible support to adapt quickly. Skill investment provides training and retraining to facilitate adaptation to new types of jobs.

The program benefits workers who are employed in jobs sensitive to technology or changing market conditions. Their retraining must be directed towards jobs in demand.

Employers and employees plan the training programs. The federal government subsidizes training costs and wages. Federal assistance for training can last up to three years.

Four options are available under the program. One option, designed to foster individual initiatives to cope with change, is full-time leave from a job to undergo training. If employees are on full-time training leave, they may receive two-thirds of their regular wages. The employer pays one-third and the federal government supports their initiative by another third. In addition, the government covers from 50 to 100 percent of eligible course fees in educational institutions.

Another option is specifically targeted at women, whether managers and owners in small business or self-employed. This option would generally involve a combination of on- and off-the-job training. In this case, reimbursements to employers for wages paid to workers during training cover up to 60 percent of wages during off-the-job training and up to 25 percent of wages during on-the-job training, to $350 per week. Self-employed individuals also receive reimbursements.

Training trust funds are another option under the skill investment program. They can be set up by employee associations or unions and employers to pay for their members' future training and skill development. During the consultation process, a number of groups advocated training trust funds as worthwhile endeavors. In response, the government will encourage the continuation of existing funds and the creation of new ones.

Under the skill investment program, the federal government will contribute 50 percent of the amount paid in by participants, up to $200,000 in the first year; and 33 percent, up to $100,000 in each of the second and third years. Thus, individual training funds can receive as much as $400,000 from the federal government over three years.

Finally, the direct purchase option involves training by the CEIC at public and private institutions for workers undertaking part-time training outside of their normal working hours. Procedures for this will follow established practices and may include dependant care, and trainee travel assistance.

19.2 Job Entry

Job entry operates through projects designed and administered by coordinators. Business, labour, community groups, the public sector, and individuals are among those who can act as coordinators.

On-site developmental training and work experience for young people and women is provided under this program. The private sector can get an opportunity to train and assess potential new employees on the worksite without facing a direct cash outlay.

Job Entry's flexibility enables the program to support educational institutions' work/study programs which will later provide graduates with a smoother access to the labour market. Similarly, during the summer months, students who take part in government-sponsored summer job programming can benefit from the career-related work experience provided through shorter-term employment projects with private sector, municipal and non-profit employers.

The job entry program benefits:

- young people, who have not graduated from a post-secondary education institution, with priority being given to those most in need - young people who have not completed secondary school;
- women, who have been out of the labour force for at least three years, and who have the greatest requirement for assistance in returning to the labour force;
- students, enrolled in work-study programs in educational institutions;
- students returning to school who take part in summer job programs.

19.3 Job Development

This program is designed to help long-term unemployed Canadians take advantage of the opportunities available in the labour market.

The job development program benefits people who have been unemployed for at least 24 out of the previous 30 weeks, including the employment-disadvantaged: women, disabled persons, native people and visible minorities.

Job development projects, lasting up to 52 weeks, combine on-site training with an employer and off-site training, as required.

Canada Employment Centre counsellors will assess individual training or job experience and place people in projects which best suit their needs.

Eligible project sponsors in the private sector can receive wage subsidies and direct financial contributions towards capital costs and training. Those who require special equipment or structural renovations to the workplace to hire disabled persons can receive up to $10,000 to defray costs.

To cover direct training costs, sponsors could receive $40 per day per client. The job development program may also pay for hiring a project manager.

19.4 Skill Shortages

In some industries, appropriately skilled workers may be in short supply and high demand. The skill shortages program provides financial assistance for employers who must train workers in these required skills. Assistance for training, under the program, may last up to three years. An employer can train current employees or ask the Canada Employment Centre to refer qualified candidates who can be hired and trained. Employers are encouraged to develop their own training plans. When the number of workers that can be trained by employers is insufficient to meet the need of the economy, the CEIC may purchase training from public or private institutions for unemployed persons.

Under the program, employers are partially reimbursed for wages paid to a worker who is being trained. Reimbursements cover 60 percent of wages during off-the-job training and 25 percent during on-the-job training, up to $350 per week. In addition, the program covers all the employer's eligible training costs, up to $30 per day for each trainee, plus 50 percent of costs exceeding $30. Employers who require special equipment or structural renovations to the workplace to hire disabled persons can receive up to $10,000 to defray costs.

19.5 Innovations

Innovations is a program designed to provide financial assistance for pilot and demonstration projects which test new solutions to labour market problems. The emphasis is on creativity, and a wide range of good ideas will be considered for funding.

Participation in the program is open to individuals or groups, anywhere in Canada, with an innovative proposal for labour market development. There are no rigid eligibility requirements and proposals from all sectors are encouraged.

Proposals should show potential for generating lasting improvements in the labour market. Priority areas related to labour market concerns include:

- new training technologies, including computer-assisted learning;
- new delivery systems for learning;
- innovative bridging programs to help workers entering or re-entering the work force;
- alternative work arrangements related to labour market adjustment;
- more effective links between training and job creation.

19.6 Community Futures

The community futures program, currently under development, will help communities hit by major layoffs and plant closures. It will also help communities faced with chronic unemployment, and communities which are struggling with economic decline but which have some permanent growth and development opportunities.

Community futures will build on the existing strengths of the communities, providing support to the private sector and local community initiative. Working in consultation with Labour Canada and the Department of Regional Industrial Expansion, the program will involve a flexible, cooperative approach with an emphasis on entrepreneurial development.

Community futures will anticipate change, rather than react to it, by responding to initiatives proposed by the communities themselves, and by providing programs closely tailored to individual community needs.

19.7 Equity in the Canadian Jobs Strategy

Four groups have been designated as requiring special measures to correct traditional imbalances in the work force: women, native people, persons with disabilities and visible minority groups.

The government has announced measures designed to introduce employment equity into the labour force. They are:

- Crown corporations must implement employment equity and report annually, beginning in 1987;
- federally regulated businesses with 100 employees or more must implement employment equity and begin reporting in 1988. Legislation to this effect is under consideration in the House of Commons;
- companies with 100 employees or more tendering on government contracts for goods and services worth over $200,000, must certify their commitment to implementing employment equity.

19.8 Local Advisory Councils

The links between businesses, training organizations, community groups and governments will be strengthened by the creation of local advisory councils. A forum will exist to allow local business, labour and community groups to meet with government representatives to discuss local employment issues and to exchange information and views.

A community-based group will meet regularly to discuss ways to respond to the needs and demands of local labour market conditions. Labour market information, gathered from all sectors of the community, will be shared and used collectively.

Preliminary allocation of the Canadian jobs strategy funds by program, for 1985-86 are shown below:

TABLE 11

JOB STRATEGY FUNDS

Program	$ million
Skill Investment	100
Job Entry	350
Job Development	700
Skill Shortages	50
Community Futures	150
Innovations	100
TOTAL	1,450
Institutional Training	650
GRAND TOTAL	2,100

Source: Canada Employment and Immigration Commission

BANKING AND FINANCE

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BANKING AND FINANCE

The Canadian financial system is highly sophisticated and internationally competitive. Canada's twelve domestic banks rank among the largest and most stable in the world, with more than 7,000 branches throughout the country and more than 300 branches in 30 foreign countries. Other sectors of the industry, including trust, insurance and securities companies, provide excellent, comprehensive financial services.

This section outlines Canada's banking and finance system, with particular attention to the needs of entrepreneurs interested in Canadian investments.

The Canadian financial industry is organized into four major subsectors traditionally known as the "four pillars" - chartered banks, trust and mortgage loan companies, insurance companies and securities firms. Canada's financial industry is regulated under both federal (Bank Act, Trust Companies Act, Loan Companies Act, etc.) and provincial laws. The various laws were enacted to avoid conflicts of interest which might arise among commercial lending, securities underwriting, estate management and other such activities. Of the four subsectors, the chartered banks play the dominant role and in terms of global assets, have a 40 percent ($211.9 billion) share. Trust and mortgage loan companies account for a 30 percent ($154.2 billion) share, while life insurance companies have an 11.5 percent ($60.5 billion) share. The remainder is divided among investment dealers, credit unions and other financial services companies.

The Canadian banking system, in particular, is well developed. In terms of financial services offered, Canadian banks are internationally competitive. In terms of size, Canada's major banks (Royal Bank of Canada, Canadian Imperial Bank of Commerce, Bank of Montreal, Bank of Nova Scotia and Toronto-Dominion Bank) rank in the top 60 worldwide.

The cornerstone of Canada's financial industry is the central bank - the Bank of Canada. The Bank of Canada is a federal government institution which has, as its primary responsibility, the task of establishing the country's monetary policy.

1. CENTRAL BANK

In addition to establishing Canada's monetary policy, the Bank of Canada acts as fiscal agent for the Government of Canada. It honours all cheques issued by the Federal Government, sells Government of Canada Treasury Bills and bonds, operates in foreign exchange markets to ensure orderly market conditions for the Canadian dollar, and issues Canada's paper currency.

The Bank of Canada is also the "bankers' bank", in that it provides a clearing house system for settling accounts between the chartered banks and other financial institutions. Also, the chartered banks are required to hold primary and secondary reserves with the Bank of Canada on which no interest is paid.

1.1 Monetary Policy

Simply stated, the Bank of Canada's primary task is to set Canada's monetary policy, which involves regulating the growth of the money supply. It does this chiefly by controlling the cash reserves of the chartered banks.

1.2 Bank Rate

The Bank Rate is the interest rate charged to chartered banks when they borrow from the Bank of Canada, as they do occasionally, for short periods of time. At present, the Bank Rate is set each week, at a quarter of one percentage point above the average yield on the 91-day Government of Canada Treasury Bills, which are auctioned every Thursday. Movements in the Bank Rate tend to reflect the general trend of short-term interest rates in the economy.

1.3 Who Owns the Bank of Canada?

All of the shares of the Bank are owned by the Government of Canada and all the profits of the Bank are paid to the Government.

1.4 Who Manages the Bank of Canada?

The responsibility for the management of the Bank lies with a 15-member Board of Directors. The Governor of the Bank is the chairman of the board and the chief executive officer. The Senior Deputy Governor is also a director. Both are appointed for seven-year terms and both are involved, full-time, in managing the Bank's affairs. Twelve outside part-time directors, by tradition at least one from each province, are appointed by the Government for three-year terms. The Deputy Minister of Finance also sits on the board.

1.5 Does the Government Tell the Bank of Canada What To Do?

Not with regard to monetary policy. The Bank of Canada Act gives the Bank the power to decide on and implement monetary policy. In so doing, the Governor consults regularly with the Minister of Finance. If the Government finds itself to be in fundamental disagreement with the Bank's policy, it is entitled by the Act to issue a written directive requiring the Bank to change its policy. However, such a directive has never been issued.

2. CHARTERED BANKS

In 1980, the Bank Act, which governs the activities of the chartered banks, was amended to allow the existence of two types of banking establishments - "Schedule A" and "Schedule B" banks. "Schedule A" banks are those banks which existed prior to the revisions of 1980. "Schedule B" banks are the new class of banks in which there is no restriction on the extent of foreign ownership. ("Schedule A" banks can have no individual shareholding exceeding 10 percent and no total foreign ownership greater than 25 percent). In essence, the revisions allowed foreign-owned "near-banks", which had been previously operating in Canada under provincial government legislation, to gain full bank status. As a whole, "Schedule B" banks are limited to 16 percent of the total domestic assets of the entire Canadian banking system.

2.1 Domestic Banks (Schedule A)

Canada's domestic banks are world class, among the largest in the world (at least the five major ones), and as a whole, rank among the most stable in the world. A list of the domestic banks is set out in Appendix I.

The six largest domestic banks are listed in Table 1, showing their asset values as of September 1985. The Bank of Montreal recently moved into second place in the ranking as a result of having recently acquired a U.S. bank.

TABLE 1

LARGEST CANADIAN BANKS, BY SIZE OF ASSETS

Rank	Banks	Assets ($billion)*
1	Royal Bank	95.52
2	Bank of Montreal	83.35
3	Imperial Bank of Commerce	76.44
4	Bank of Nova Scotia	60.80
5	Toronto Dominion Bank	51.10
6	National Bank	21.79

* September 1985
Source: Canadian Bankers Association

2.1.1 Branch Banking System

Unlike the banking system in the U.S., which is characterized by thousands of banks (approximately 14,000) whose operations are more likely than not restricted to one state or even one community, Canada has only 12 banks which have thousands of branches across the country. Of the some 7,000 branches across Canada, the five major banks account for well over 6,000 of them.

The advantage of a branch banking system to the Canadian consumer is obvious, as people in small remote areas of Canada have ready access to the same range of banking services as those who live in the large urban centres. The banks utilize the branch system by transferring deposits, which exceed local borrowing, to other branches in Canada where loan requirements exceed local deposits. Also, the banks can achieve loan diversification which insulates them from economic downturns in certain areas of the country.

2.1.2 Who Owns the Banks?

The shares of "Schedule A" banks are publicly traded and the Bank Act ensures that no individual shareholder owns more than 10 percent of the stock of a bank. Approximately 95 percent of the shareholders of all bank stocks are Canadian residents.

2.1.3 Who Manages the Banks?

Like any large corporation, each bank has a board of directors elected by the shareholders. The directors establish the general policy of the banks, and, in turn, select the management team (professional bankers) who run the day-to-day business of the bank.

2.1.4 Do Canadian Banks Have International Operations?

The international operations of the Canadian banks, particularly the five major ones, have increased substantially since 1970 (so much so that in 1982, foreign currency assets, represented 43 percent of their total assets in contrast to 29 percent in 1970). The Canadian banks have some 300 branches in 30 countries, and have correspondent relationships with more than 5,000 banks worldwide.

2.1.5 What Types of Services Are Offered by Banks?

The Canadian banking system provides its services to both the individual and the large corporation. Some of the services offered are:

- savings accounts
- chequing - savings accounts
- deposit receipts
- commercial loans, including term loans
- mortgage loans
- agricultural loans
- automated teller machines
- foreign trade and market information.
- commercial collections and remittances
- transfer of funds
- traveller's cheques
- credit information
- custody of securities and other valuables
- current accounts
- personal chequing accounts
- personal loans
- bankers' acceptances
- home improvement loans
- student loans
- credit cards
- currency trading
- letters of credit
- guarantees
- money orders and bank drafts
- night depositories
- banking by mail
- acceptance of account payments
- bill payment services

2.2 Foreign-Owned Banks (Schedule B)

Since their inception in 1980, "Schedule B" banks have stimulated competition in the Canadian banking system for the middle-market customer (intermediate-sized companies). It appears that they have been successful, as the legislated ceiling on their aggregate share of the Canadian banking industry has been increased recently from 8 percent to 16 percent. Another factor pointing to their success is the actual number of "Schedule B" banks, which currently stands at 57. A list of these banks is set out in Appendix I.

With the major foreign banks now established in Canada, the foreign investor may be able to deal with his home bank's subsidiary here in Canada. Thus, there may be no necessity to seek out a Canadian bank for the conduct of the foreign investor's financial affairs in Canada.

2.2.1 Available Services From Foreign Banks

The "Schedule B" banks provide the same range of services as the domestic chartered banks, regarding loans, deposits and commercial services. However, they can lend only 20 times their "deemed authorized capital", set by the Department of Finance. This is to limit these institutions to 16 percent of the domestic market.

3. EMERGING TRENDS OR DEVELOPMENTS IN CANADIAN BANKING

3.1 Pruning of the Branch Networks

There have been closures and consolidations of many poorly-located branches. The total number of branches will probably not decline any further, and should remain constant over the next few years.

3.2 Expansion of Financial Services

- Personal banking will probably move towards home banking, which has been introduced into the U.S., in a very limited fashion, by five of the six largest U.S. banks.

- Electronic funds transfer (or as it is known within the financial industry, EFT) will probably play a much more important role in consumer and commercial banking, because the technology is available and the public response to automated teller machines has been positive.

3.3 Increased Competition

- The domestic banks will come under continued pressure from foreign-owned banks as they compete for the business of intermediate-sized Canadian companies; and, from other financial institutions (trust and mortgage loan companies, credit unions, etc.) as they endeavour to capture a greater share of the consumer and small business markets.

4. TRUST & MORTGAGE LOAN COMPANIES

Trust and mortgage loan companies may be incorporated under either federal or provincial legislation. They are deposit-taking institutions, and in many respects, are similar to the Canadian chartered banks. However, these institutions do not normally provide a full range of commercial banking services. Businesses may finance their operations by using loans from these institutions, either on a term basis or on mortgage security. These institutions generally invest their funds in private residential mortgages and in shorter-term mortgages, in a wide variety of commercial and revenue-producing properties. Trust and mortgage loan companies are in many ways similar to the savings and loan institutions in the U.S.

5. INSURANCE COMPANIES

In addition to their primary role of risk underwriting, insurance companies must find profitable ways of deploying premium income. One option is to provide financial services, albeit limited, to the business community in Canada.

Businesses requiring financing over the intermediate (5 to 10 years) or long term (over 10 years) can utilize the financial resources of insurance companies. Financing of real estate transactions, for example, might require terms of up to 40 years, and under such circumstances, insurance companies would be competitive with other financial institutions such as the chartered banks, trust companies and mortgage loan companies.

6. SECURITIES FIRMS

Securities firms or investment dealers in Canada bring together those with capital to invest and those in search of capital. In other words, an investment dealer directs the savings of Canadians and foreign investors to finance the various levels of government and all types of businesses. This matching-up process can be accomplished in two ways. The investment dealer underwrites new public issues of corporate or government securities, or it offers new issues to the Canadian public on a best efforts or agency basis. The second way is through the placement of corporate securities with private individuals or corporations. Securities legislation, with respect to private placements, is much less stringent than that respecting public issues.

The Investment Dealers Association of Canada is the national self-regulatory body of the Canadian securities industry. Its members accounted for more than 95 percent of all securities transactions (in excess of $700 billion) for both the private and public sectors in Canada, in 1984. All but $30 billion, which was traded on the stock exchanges, was attributable to bond and money market trading and new issue business. It should be noted that Canadians, on a per capita basis, raise twice as much capital as do Americans.

Presently, there are restrictions with respect to foreign ownership in securities firms. However, on February 18, 1985, the Ontario Securities Commission (Canada's largest) issued a report which recommended, among other items, that the restrictions on ownership of securities firms by non-residents be relaxed, and that a limited number of non-resident securities firms enter the Canadian securities industry, subject to capital restrictions. These recommendations reflect the growing internationalization of securities markets, and should allow Canadian firms to become more active in world markets.

7. STOCK EXCHANGES

Canada has four stock exchanges - Toronto, Montreal, Vancouver and Alberta and one commodity exchange in Winnipeg. Toronto, Montreal and Vancouver are the most significant exchanges in Canada, with Toronto being the largest. All stock exchanges are regulated by the province in which the exchange is located, and there are some differences in regulations among provinces.

From 1982 to mid-1985, the Toronto Stock Exchange (TSE) Composite index out-performed the London and United States indices and did marginally better than the Standard and Poor 500 composite stocks in the U.S. At the end of June, 1985, the TSE composite index was 70.8 percent higher than at the end of the first quarter of 1982. Over the same period the Standard and Poor 500 index was up 70.5 percent, the Dow Jones industrial composite was up 62.3 percent and the London exchange index (Financial Times) was up 69.7 percent. Over the last two quarters of 1985, the London, S&P and Dow Jones indices all outperformed the TSE composite. Market performance over the four years is shown in Table 2.

TSE sectors are compared in Table 3. From the end of 1982 to the end of 1985, merchandising stocks rose by 83.7 percent, followed by oil and gas at 62.1 percent, utilities at 60.5 percent, paper and forest products at 57.1 percent, financial services at 46.7 percent, metals and minerals at 12.0 percent and gold at 3.1 percent. This latter group, however, rose by 48.8 percent in 1985 alone, recovering from two years of decline which took that index to a year end 69.3 in 1984.

TABLE 2

INDEX OF COMPARATIVE STOCK MARKET PERFORMANCE

At end of:		TSE Composite	S&P 500	Dow Jones Industrial	London
1982	1	100.0	100.0	100.0	100.0
	2	86.1	99.0	98.7	98.2
	3	100.0	110.5	108.9	104.5
	4	123.3	125.8	127.2	106.5
1983	1	135.8	136.5	137.3	116.6
	2	154.1	150.1	148.5	128.0
	3	157.5	150.9	149.9	123.4
	4	160.8	148.4	153.0	137.3
1984	1	150.0	142.1	141.6	155.6
	2	139.9	138.2	137.6	143.0
	3	150.7	149.9	146.7	154.7
	4	151.2	148.5	147.3	169.4
1985	1	164.6	161.9	154.0	174.6
	2	170.8	170.5	162.3	169.7
	3	165.8	164.4	161.5	178.7
	4	182.7	190.7	188.0	201.5

Source: Toronto Stock Exchange; Standard & Poor's; The Economist; Dow Jones.

TABLE 3

TORONTO STOCK EXCHANGE - SECTOR COMPARISON

End of:	Oil, Gas Prod.*	Oil, Gas Compos.	Metals, Minerals	Utilities	Paper & Forest Prod.	Merchandising	Financial Serv.	Golds
1982	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1983	133.9	129.3	134.2	127.6	147.0	139.8	119.1	98.7
1984	104.3	111.4	104.0	135.9	135.8	120.0	116.1	69.3
1985	107.7	162.1	112.0	160.5	157.1	183.7	146.7	103.1

* Comprised of 47 of the 53 stocks in the oil and gas composite sector.

Source: Bank of Canada Review

As a general rule, the listing of a corporate stock on one of Canada's stock exchanges is not complicated and can occur with little difficulty. Each new listing must meet certain minimum listing requirements established by each stock exchange. Canadian requirements are much the same as those of the Securities and Exchange Commission in the U.S.

Canada's bond market is also well developed. Major corporations regularly raise capital by issuing bonds and debentures. Securities dealers usually handle the underwriting and distribution of these securities. An "over-the-counter" secondary market ensures liquidity for the purchasers.

8. OTHER FINANCIAL INSTITUTIONS

8.1 Sales Finance Companies

Sales finance companies provide a wide range of services to consumer and commercial clientele. Small loans are provided to the consumer for the consolidation of personal debts, automobile purchases, purchase of household appliances, vacations, etc. On the commercial side, sales finance companies are primarily involved in vehicle fleet leasing or equipment financing. The large companies in this field are owned by the manufacturer of the product being financed (i.e., the major automobile manufacturers have their own finance companies such as GMAC, Ford Credit and Chrysler Credit).

8.2 Credit Unions

Credit unions are similar to savings and loans banks in the U.S. They are co-operative associations which primarily accept deposits and offer mortgage and personal loans. Many of the credit unions provide loans to small business, as well as chequing facilities, term deposits, travellers' cheques, lines of credit, etc.

8.3 Provincial Financial Institutions

Each province has established its own financial agency which can provide financial assistance in the form of a direct loan or loan guarantee to companies carrying on business in the province. These agencies are usually a last resort for business, and therefore, serve to complement, rather than compete with other financial institutions.

9. FUTURE DEVELOPMENTS

Deregulation of the financial industry is an issue currently being debated in Canada. If deregulation occurs, the traditional preserves of the "four pillars" could dissolve, and the result could be the creation of one-stop financial supermarkets. This would mean, for example, that a customer of a chartered bank could not only obtain normal banking services, but also could have his car and life insured with the bank, purchase and sell his stocks and bonds, as well as have his estate planned, at his local branch.

There is also mention of an alternative to complete deregulation, "networking". This would mean that various arrangements between financial institutions would occur, whereby one financial institution would agree to offer the services of another institution to its customers, on a fee basis.

For example, investment services provided by an investment dealer might be available to customers of a particular chartered bank, and the same chartered bank may also offer the services of a particular life insurance company, trust company or a mortgage loan company, again on a fee basis.

10. SOURCES OF FEDERAL GOVERNMENT FINANCING

10.1 Federal Business Development Bank

The Federal Business Development Bank (FBDB) is a Crown Corporation that exists to promote and assist most types of businesses in Canada, either at the start-up stage or at some other stage in their development. It pays particular attention to the needs of small and medium-sized businesses. FBDB offers three principal services to Canada's business community: financial services (loans, loan guarantees, and financial planning), investment banking, and management services such as counselling, training, and information.

10.1.1 The Financial Services

Services of the FBDB include term loans, loan guarantees, and a 'Financial Planning Program'. In addition to providing a referral service to match investors with people seeking investment funds, the Financial Planning Program includes a series of do-it-yourself business kits and a service that draws up financing proposals for clients.

(i) term loans are offered to acquire fixed assets such as land, building, machinery and equipment. They are also made to acquire other businesses, to increase working capital, and to finance increased sales.

Rates: can be floating or fixed.

Terms: up to 5 years with amortization depending upon nature of loan, security, repayment ability, etc.

Repayment: structured to client's ability to repay.

(ii) loan guarantees are provided to financial institutions on behalf of a client. A small commission is involved and security is the same required under a term loan.

(iii) financial planning is offered to maximize a client's chances of obtaining assistance from financial institutions, private investors and government agencies.

10.1.2 Investment Banking Service is designed to assist companies which have high growth potential, but which have limited access to the capital market. Its primary goal is to increase the amount of risk capital available to promising small and medium-sized businesses in Canada, by using its own capital or by attracting equity financing from private financial institutions. This is achieved by full syndication to private sources of equity financing, by underwriting a company's stock issue with the intention of allowing as much equity as possible from the private sector, or by investing jointly with the private sector in promising enterprises. When FBDB invests its own funds in a company, its policy is generally to remain a minority shareholder, and to divest itself of its holdings as soon as feasible for both the company and FBDB.

10.1.3 Management Services of FBDB provide one of the most important sources of business counselling, training and information for small and medium-sized businesses in Canada. The services are broken out into eight categories and are briefly outlined below:

i) CASE (Counselling Assistance to Small Enterprises)
Through this program, more than 1,500 successful retired business people assist firms in improving their methods of doing business. They provide counselling assistance in all areas of business management, including accounting, marketing, production, and personnel.

Any type of business is eligible for CASE counselling services, as long as it has no more than 75 employees. Being a borrower from FDBD is not a requirement, and counselling costs are moderate. Travel expenses of counsellors are paid by the Bank to ensure that this service is available to businesses across the country, at the same moderate cost.

ii) Business Management Seminars
The FBDB seminar program consists of a variety of full-day and half-day seminars on topics such as bookkeeping, personnel, marketing, taxation, and finance. Twenty different business topics are presently covered by FBDB seminars.

iii) Joint Seminars
Joint Seminars are special adaptations of FBDB's regular half-day and full-day seminars on various topics, ranging from general management and marketing to finance and personnel. These are generally done for associations or special groups requiring seminars to meet the specific needs of their members.

iv) Management Clinics
A management clinic is a unique, self-teaching program for business owners and those considering the big step to self-employment. It consists of two integral parts: a videocassette, which can be viewed at the branch; and a workbook, which can be completed at your office or home.

v) Owner/Manager Courses
These courses are designed and published by the FBDB (for distribution by provincial and territorial departments or ministries of education) especially for business people who are interested in improving their management skills. Courses follow the case-study method, with participants applying what they have learned to a realistic business situation.

vi) Minding Your Own Business (MYOB)
This is a pocketbook series that presents, in a straightforward, easy-to-read style, the important steps of running a successful business.

vii) Small Business Information Service (SBIS)
All branches of the FBDB can provide business people with a wide range of free information on the many federal, provincial, and municipal programs available to businesses.

viii) Publications

FBDB also publishes "Profits", a quarterly tabloid which includes a supplement entitled "Small Business News". This publication regularly features various FBDB services, in addition to articles of current interest to the small and medium-sized business community.

There is no mailing list for "Profits", as it is automatically distributed to all businesses across Canada through Canada Post.

A list of FBDB offices is shown in Appendix II.

10.2 Export Development Corporation

The Export Development Corporation (EDC) is a Canadian Crown Corporation whose purpose or goal is to facilitate and develop Canada's export trade. It does so by offering services in three broad categories - insurance, guarantees and export financing. Any company or person operating a business in Canada can make use of EDC'S services provided: there is an export sale; the transaction is economically sound; the foreign buyer is credit-worthy; and the goods and services to be exported have a Canadian content of 60 per cent.

10.2.1 Export Insurance

Export insurance covers two types of risks - commercial and political. Commercial risks insured are insolvency of the foreign buyer, default of the foreign buyer, repudiation by the foreign buyer, and termination of a contract by the foreign buyer. Political risks insured are blockage of the funds or transfer problems, cancellation or non-renewal of export or import permits, war or revolution in the buyer's country, expropriation of a foreign investment, wrongful call of performance bonds by a foreign buyer, and rightful calls outside the control of the exporter. EDC will insure almost any type of transaction involving goods, services or technology. It provides the exporter with various types of insurance policies such as those covering short-term credit transactions, medium-term credit transactions, surety risks, foreign investments and loan pre-disbursement. The premiums for EDC insurance are based on: the type of goods or service, the buyer, the country, terms of credit, spread of risk, and the type of insurance being provided.

10.2.2 Export Guarantees

Export guarantees are used to facilitate medium-term export sales. Unconditional guarantees against losses incurred in financing an export transaction are made available to banks which provided financing to EDC-insured exporters, or which provided loans to buyers of Canadian capital goods and services. In international transactions requiring the posting of security guaranteeing that the exporter will perform in accordance with the terms and conditions of the contract (construction projects), or the actual bid itself, EDC can issue a 100 percent unconditional guarantee to banks or other financial institutions. This enables the exporter and his bank to supply the requisite securities demanded by the foreign buyer, without tying up the exporter's working capital.

10.2.3 Export Financing

Export financing is provided to foreign buyers of Canadian capital goods, equipment and services. Funds are disbursed by EDC directly to the exporter on behalf of the foreign buyer, which effectively results in a cash sale for the exporter. Export financing is available for medium and long-term transactions to help Canadian exporters compete on a equal basis with exporters from other countries. The financing can take the form of a loan, line of credit, multiple disbursement agreement loan (single buyer of goods or services from various Canadian exporters in the execution of a project) or note purchase program (EDC purchases a series of promissory notes which are drawn by a foreign buyer and made payable to the exporter).

For additional information, please contact the nearest EDC office.

HEAD OFFICE

151 O'Connor Street
Ottawa, Ontario
K1P 5T9
TELEPHONE: (613) 598-2500
TELEX: 053-4136
FACSIMILE: (613) 237-2690

Western Region

(British Columbia, Alberta,
Saskatchewan, Manitoba)
Export Development Corporation
Suite 1030, One Bentall Centre
505 Burrard Street
Vancouver, British Columbia
V7X 1M5
TELEPHONE: (604) 688-8658
TELEX: 94-54223
FACSIMILE: (604) 688-3710

Atlantic Region

Export Development Corporation
Suite 1401
Toronto-Dominion Bank Building
1791 Barrington Street
Halifax, Nova Scotia
TELEPHONE: (902) 429-0426
TELEX: 019-21502

Ontario Region

Export Development Corportion
Suite 810
National Bank Building
P.O. Box 810, 150 York Street
Toronto, Ontario, M5H 3S5
TELEPHONE: (416) 364-0135
TELEX: 06-22166
FACSIMILE: (416) 862-1267

Quebec Region

Export Development Corporation
Suite 2724, 800 Victoria Square
P.O. Box 124
Tour de la Bourse Postal Station
Montreal, Quebec
TELEPHONE: (514) 878-1881
TELEX: 05-25618
FACSIMILE: (514) 878-9891

APPENDIX I

THE CHARTERED BANKS OF CANADA

Domestic Banks

Bank of Montreal
P.O. Box 6002
Montreal, Quebec H3C 3B1

Toronto Dominion Bank
P.O. Box 1, Toronto Dominion Centre
Toronto, Ontario M5K 1A2

Canadian Imperial Bank of Commerce
Commerce Court
Toronto, Ontario M5L 1A2

The Mercantile Bank of Canada
P.O. Box 520
Montreal, Quebec H3C 2T6

Continental Bank of Canada
130 Adelaide Street West
Toronto, Ontario M5H 3R2

Bank of Alberta
10040-104 Street, Suite 1200
Edmonton, Alberta T5J 3X6

Bank of Nova Scotia
44 King Street West
Toronto, Ontario M5H 1H1

National Bank of Canada
600 de la Gauchetière West
Montreal, Quebec H3B 4L2

The Royal Bank of Canada
P.O. Box 6001
Montreal, Quebec H3C 3A9

Bank of British Columbia
1725-Two Bentall Centre
Vancouver, British Columbia V7X 1K1

Western & Pacific Bank of Canada
555 Burrard Street, Suite 1585
Vancouver, British Columbia V7K 1M9

Morguard Bank of Canada
999 West Hastings Street, Suite 500
Vancouver, British Columbia V6C 2X9

Foreign Bank Subsidiaries

ABN Bank Canada
Royal Trust Tower, Suite 3901
Toronto, Ontario M5K 1G8

BT Bank of Canada
Royal Bank Plaza, N. Tower, 16th Fl.
Toronto, Ontario M5J 2J2

Bank of Boston Canada
70 University Avenue
Toronto, Ontario M5J 2M4

The Chase Manhattan Bank of Canada
Commerce Court West, Suite 3605
Toronto, Ontario M5L 1G1

Citibank Canada
123 Front Street West, Suite 1900
Toronto, Ontario M5J 3M3

Bank of America Canada
20 Queen Street West, Suite 3302
Toronto, Ontario M5H 3R3

Barclays Bank of Canada
Commerce Court West, Suite 3500
Toronto, Ontario M5L 1G2

Banco Central of Canada
330 Bay Street, Suite 709
Toronto, Ontario M5H 2S8

Chemical Bank of Canada
150 York Street, 19th Floor
Toronto, Ontario M5H 3S5

Comerica Bank Canada
2 First Canadian Place, Suite 2145
Toronto, Ontario M5X 1E3

Banking and Finance

Banca Commerciale Italiana of Canada
130 Adelaide Street West, Suite 1800
Toronto, Ontario M5H 3P5

Bank of Credit and Commerce Canada
625 Dorchester Blvd. West
Montreal, Quebec H3B 1R2

Crédit Lyonnais Canada
2000 Mansfield Street, 18th Floor
Montreal, Quebec H3A 3A6

Dai-Ichi Kangyo Bank (Canada)
Commerce Couirt West, Suite 3740
Toronto, Ontario M5L 1H9

Dresdner Bank Canada
2 First Canadian Place, Suite 1700
Toronto, Ontario M5X 1E3

The First National Bank of Chicago
(Canada)
2 First Canadian Place, Suite 2300
Toronto, Ontario M5X 1E4

Grindlays Bank of Canada
Royal Bank Plaza, N Tower, 18th Fl.
Toronto, Ontario M5J 2J3

Bank Hapoalim (Canada)
1 First Canadian Place, 63rd Floor
Toronto, Ontario M5X 1A9

The Industrial Bank of Japan (Canada)
Commerce Court North, Suite 1200
Toronto, Ontario M5L 1G3

Irving Bank Canada
Commerce Court East, Suite 700
Toronto, Ontario M5L 1E8

Korea Exchange Bank of Canada
2 First Canadian Place, Suite 1140
Toronto, Ontario M5X 1E3

Lloyds Bank International Canada
Commerce Court North, Suite 2500
Toronto, Ontario M5L 1H8

Mellon Bank Canada
1 First Canadian Place, Suite 6400
Toronto, Ontario M5X 1A4

Continental Illinois Bank (Canada)
1 First Canadian Place, 60th Floor
Toronto, Ontario M5X 1H2

Crédit Commercial de France (Canada)
1155 Dorchester Blvd West, Suite 2305
Montreal, Quebec H3B 2K2

Crédit Suisse Canada
Commerce Court West, Suite 2400
Toronto, Ontario M5L 1K2

Deutsche Bank (Canada)
2 First Canadian Place, Suite 3600
Toronto, Ontario M5X 1E3

First Interstate Bank of Canada
2 First Canadian Place, Suite 800
Toronto, Ontario M5X 1E3

Fuji Bank Canada
Royal Bank Plaza, South Tower,
Suite 2301
Toronto, Ontario M5J 2J3

Hanil Bank Canada
Four Bentall Centre, Suite 2674
Vancouver, British Columbia V7K 1L3

Hongkong Bank of Canada
1818-200 Granville Street
Vancouver, British Columbia V6C 1L3

International Commercial Bank of Cathay
(Canada)
150 York Street, 9th Floor
Toronto, Ontario M5H 3S5

Israel Discount Bank of Canada
150 Bloor Street West, Suite M100
Toronto, Ontario M5S 2Y5

Bank Leumi le-Israel (Canada)
2 First Canadian Place, Suite 840
Toronto, Ontario M5X 1E3

Manufacturers Hanover Bank of Canada
20 Queen Street West, Suite 3400
Toronto, Ontario M5H 3R3

Midland Bank Canada
2 First Canadian Place, Suite 1100
Toronto, Ontario M5X 1E3

Mitsubishi Bank of Canada
200 Grenville Street, Suite 48
Vancouver, British Columbia V6C 1S4

Morgan Bank of Canada
Royal Bank Plaza, S. Tower, Suite 2250
Toronto, Ontario M5J 2J2

National Bank of Greece (Canada)
852 Jean Talon West
Montreal, Quebec H3N 1S4

Banque Nationale de Paris (Canada)
1981 McGill College Avenue, Suite 100
Montreal, Quebec H3A 2W8

Overseas Bank (Canada)
612 Main Street
Vancouver, British Columbia V6A 2V3

Paribas Bank of Canada
2 First Canadian Place, Suite 2520
Toronto, Ontario M5X 1E3

Sanwa Bank Canada
Commerce Court West, Suite 3950
Toronto, Ontario M5L 1G3

Société Générale (Canada)
630 Dorchester Blvd. West, Suite 2300
Montreal, Quebec H3B 1S6

State Bank of India (Canada)
Royal Bank Plaza, N. Tower, Suite 401
Toronto, Ontario M5J 2J2

The Bank of Tokyo Canada
Royal Bank Plaza, S. Tower, Suite 2160
Toronto, Ontario M5J 2J1

Wells Fargo Bank Canada
TransCanada Pipelines Tower, Suite 2120
Calgary, Alberta T2P 3S8

The Mitsui Bank of Canada
2 First Canadian Place, Suite 2531
Toronto, Ontario M5X 1E3

National Bank of Detroit, Canada
Royal Bank Plaza, N. Tower, Suite 895
Toronto, Ontario M5J 2J3

National Westminster Bank of Canada
Royal Bank Plaza, S. Tower, Suite 2060
Toronto, Ontario M5J 2J1

Banca Nazionale del Lavoro of Canada
1 First Canadian Place, Suite 6965
Toronto, Ontario M5N 1F1

Overseas Union Bank of Singapore (Canada)
2 First Canadian Place, Suite 860
Toronto, Ontario M5X 1E3

Republic National Bank of New York (Canada)
1981 McGill College Avenue, Suite 150
Montreal, Quebec H3A 3A7

Security Pacific Bank of Canada
2 First Canadian Place, Suite 900
Toronto, Ontario M5X 1H8

Standard Chartered Bank of Canada
55 University Avenue, 14th Floor
Toronto, Ontario M5J 2H7

Swiss Bank Corporation (Canada)
Royal Bank Plaza, N. Tower, Suite 2950
Toronto, Ontario M5J 2J1

Union Bank of Switzerland (Canada)
2 First Canadian Place, Suite 1000
Toronto, Ontario M5X 1E5

APPENDIX II

FEDERAL BUSINESS DEVELOPMENT BANK

ATLANTIC REGION

Regional Office

Cogswell Tower
Suite 1400, Scotia Square
P.O. Box 1656
Halifax, Nova Scotia
B3J 2Z7
(902) 426-7860

Branch and Case Offices:

Clarenville:
Manitoba Drive
P.O. Box 997
Clarenville, Nfld
A0E 1J0
(709) 466-3201

Dartmouth:
900 Windmill Road
Suite 106
Dartmouth, N.S.
B3B 1L7
(902) 426-8050

Corner Brook:
Herald Tower:
4 Herald Aven.
P.O. Box 790
Corner Brook, Nfld.
A2H 6G7 (709) 639-7113

(CASE OFFICE)
4A Herald Ave.
A2H 6H6 (709) 639-9126

Grand Falls:
42 High St. P.O. Box 744
Grand Falls, Nfld.
A2A 2M4 (709) 489-2181

Great Northern Peninsula:
Zenith 07082
(via operator)

St. John's:
3rd Floor (CASE OFFICE)
Atlantic Place
Water Street (709) 772-5515
St. John's, Nfld.
A1C 5K4 (709) 772-5505

Sydney:
48-50 Dorchester St. (CASE OFFICE)
P.O. Box 726
Sydney, N.S. (902) 539-6910
B1P 6H7
(902) 539-4556

Bridgewater:
655 King St.
P.O. Box 540
Bridgewater, N.S.
B4V 2X6 (902) 543-7821

Halifax:
Scotia Square
Cogwell Tower
Suite 1400
P.O. Box 1656
Halifax, N.S.
B3J 2Z7
(902) 425-7850

(CASE OFFICE)
710 Cogswell Tower
Scotia Square, B3J 3K1
(902) 426-2474

Truro:
CN Commercial Centre
34 Esplanade St.
P.O. Box 1378
Truro, N.S.
B2N 5N2
(902) 895-6377

Edmunston:
121 de l'Eglise St.
Suite 401
Edmundston, N.B.
E2V 3L2
(506) 739-8311

Moncton:
860 Main St.
P.O. Box 1090
Moncton, N.B.
E1C 8P6
(506) 388-6120
(CASE OFFICE:)
same address
4th Floor E1C 1G2
(506) 388-6000

Charlottetown:
137 King St.
P.O. Box 488
Charlottetown, P.E.I.
C1A 7L1
(902) 892-9151
(CASE OFFICE:)
same address
(902) 566-7460

Bathurst:
270 Douglas Ave.
P.O. Box 780
Bathurst, N.B.
E2A 4A5
(506) 548-3345

Fredericton:
Kings Place Complex
Suite 649
440 King St.
P.O. Box 1235
Fredericton, N.B.
E3B 4Y3
(506) 452-3030
(CASE OFFICE) same address
Suite 646 E3B 5H8
(506) 452-3022

Saint John:
75 Prince William St.
P.O. Box 7173
Postal Station "A"
Saint John, N.B.
E2L 4S6
(506) 648-4751

QUEBEC REGION

Regional Office:
800, Victoria Square
Place Victoria
Suite 4600
Montreal, Quebec
H4Z 1C8
(514) 283-3657

Branch and Case Offices:

Chicoutimi:
475 rue des Champs Elysées
Chicoutimi, Quebec
G7H 5V7
(418) 545-1580
(CASE Office) same address

Drummondville:
1010 des Galeries
Drummondville, Quebec
J2C 5W4
(819) 478-4951

Granby:
161 rue Principale
Granby, Quebec
J2G 2V5
(514) 372-5202

Hull:
Plaza Val Tétreau
400 boul. Alexandre-Taché
Hull, Quebec
J9A 1M5
(819) 997-4434

Laval:
2525 boul. Daniel-Johnson Chomedey
Laval, Quebec
H7T 1S9
(514) 687-4121
(CASE OFFICE)
same address
(514) 681-9291

Longueuil:
Complexe Bienville
1000 rue de Sérigny
Suite 500
Longueuil, Quebec
J4K 5B1
(514) 670-9550
(CASE OFFICE) same address

Montreal (Place Victoria):
800 Victoria Square
Suite 1008
Place Victoria
Montreal, Quebec
H4Z 1C8
(514) 878-9571
(CASE OFFICE) same address

Montreal (de Maisonneuve):
6068 rue Sherbrooke est
Montreal, Quebec
H1N 1C1
(514) 255-2311

Quebec:
871 Chemin St. Louis
(CASE OFFICE)
same address
Quebec, Que.
G1S 1C1
(418) 694-3972

Rimouski:
320 rue St. Germain est
Suite 303
Rimouski, Quebec
G5L 1C2
(418) 722-3315
(CASE OFFICE) same address
Suite 702
(418) 722-3315

Rouyn-Noranda:
147 av. Mercier
Rouyn, Quebec
J9X 4X4
(819) 764-6701

St. Georges de Beauce:
11195 - 2e Avenue
St. Georges de Beauce, Quebec
G5Y 1V9
(418) 228-4131

St-Jérome:
Galeries des Laurentides
P.O. Box 600
St-Antoine des Laurentides, Quebec
J7Z 5V3
(514) 432-7111

St-Laurent:
3100 Cote Vertu
St. Laurent, Quebec
H4R 2J8
(514) 334-6560
(CASE OFFICE) same address as above

Sept-Iles:
690 boul. Laure
Suite 52
Sept-Iles, Quebec
G4R 4N8
(418) 968-1420

Sherbrooke:
2532 rue King ouest
Sherbrooke, Quebec
J1J 2E8
(819) 565-4740
(CASE OFFICE) same address

Trois-Rivières:
1410 rue des Cyprès
P.O. Box 666
Trois-Rivières, Quebec
G8Y 4S3
(819) 375-1621
(CASE OFFICE) same address

Valleyfield:
85 rue Champlain
Valleyfield, Quebec
J6T 1W4
(514) 371-0611

ONTARIO REGION

Regional Office:
250 University Ave.
Toronto, Ontario
M5H 3E5
(416) 593-1144

Branch and Case Offices:

Barrie:
151 Dunlop St. E.
P.O. Box 876
Barrie, Ont.
L4M 4Y6
(705) 728-6072

Chatham:
59 Adelaide St. S.
Chatham, Ont.
N7M 4R1
(519) 354-8833

Cornwall:
16 Second St. E.
Cornwall, Ont.
K6J 1G2
(613) 938-0593

Hamilton:
8 Main St. E.
P.O. Box 619
Hamilton, Ont.
L8N 1E8
(416) 523-2954
(CASE OFFICE) same address

Kenora:
20 Main St. S.
Kenora, Ont.
P9N 3X3
(807) 468-5575

Kitchener-Waterloo:
Commerce House
50 Queen St. N.
4th Floor
P.O. Box 428
Postal Terminal
Kitchener, Ont.
N2H 3Y9
(519) 744-4186
(CASE OFFICE) same address

Mississauga:
33 City Centre Drive
Suite 145
(Square One, Northern
Telecom Building)
Mississauga, Ont.
L5B 2N5
(416) 273-9880

Oshawa:
22 King St. W.
5th Floor
Oshawa, Ont.
L1H 1A3
(416) 576-6800
(CASE OFFICE) same address
(416) 571-1355

Peterborough:
340 George St. N.
P.O. Box 1419
Peterborough, Ont.
K9H 7H6
(705) 748-3241

Sault Ste. Marie:
405 Queen St. E.
Sault Ste. Marie, Ont.
P6A 1Z5
(705) 949-3680

Stratford:
1036 Ontario St.
Stratford, Ont.
N5A 6Z3
(519) 271-5650

Kingston:
Plaza 16
16 Bath Rd.
Kingston, Ont.
K7L 4V8
(613) 549-1531

London:
197 York St.
Suite 1000
London, Ont.
N6A 1B2
(519) 434-2144
(CASE OFFICE) same address
(519) 432-6705

North Bay:
205 Main St. E.
P.O. Box 925
North Bay, Ont.
P1B 8K2
(705) 476-4123
(CASE OFFICE) same address

Ottawa:
280 Albert Street
Ottawa, Ontario
K1P 5G8
(613) 995-0234
(CASE OFFICE) same address
(613) 995-5068

St. Catherines:
71 King St.
St. Catharines, Ont.
L2R 7A7
(416) 685-4804

Scarborough:
2978 Eglinton Ave. E.
Scarborough, Ont.
M1J 5C8
(416) 431-5410

Sudbury:
1 Elm St. E.
P.O. Box 820
Sudbury, Ont.
P3C 1R6
(705) 674-8347

Thunder Bay:
905 Victoria Ave. E.
P.O. Box 878
Station "F"
Thunder Bay, Ont.
P7C 1B3
(807) 623-2745
(CASE OFFICE) same address

Timmins:
83 Algonquin Blvd. W.
P.O. Box 1240
Timmins, Ont.
P4N 7J5
(705) 267-6416

Toronto:
204 Richmond St. W.
Toronto, Ontario
M5V 1V6
(416) 598-0341
(CASE OFFICE) same address

Toronto-North:
7501 Keele Street
Suite 200
Concord, Ont.
L4K 1B6
(416) 738-1788
(CASE OFFICE) same address

Windsor:
500 Ouellette Ave.
Windsor, Ontario
N9A 1B3
(519) 254-8626
(CASE OFFICE) same address

PRAIRIE AND NORTHERN REGION

Regional Office:
161 Portage Ave.
Suite 300
Winnipeg, Manitoba
R3B 0Y4
(204) 949-7811

Branch and Case Offices:

Manitoba

Brandon:
940 Princess Ave.
Brandon, Man.
R7A 5Y6
(204) 727-8415
(CASE OFFICE) same address

Winnipeg:
386 Broadway Ave.
Suite 101
Winnipeg, Man
R3C 3R6
(204) 949-7900
(CASE OFFICE) same address
Suite 605, (204) 949-7900

Saskatchewan

Prince Albert:
1100 - 1st Avenue E.
P.O. Box 520
Prince Albert, Sask.
S6V 2A7
(306) 764-6448

Banking and Finance

Regina:
Bank of Canada Bldg.
Suite 320
2220 - 12th Avenue
Regina, Sask.
S4P 0M8
(306) 359-6478
(CASE OFFICE) same address

Saskatoon:
CN Towers
Suite 1102
Midtown Plaza
Saskatoon, Sask.
S7K 1J5
(306) 665-4822
(CASE OFFICE) same address

Alberta

Calgary North:
3015 - 12th Street, N.E.
Calgary, Alta.
T2E 7J2
(403) 230-5930
(CASE OFFICE) same address

Calgary South:
10601 Southport Road, S.W.
Suite 328
Calgary, Alta.
T2W 3M6
(403) 278-6240

Edmonton:
606 Principal Plaza
10303 Jasper Ave.
Edmonton, Alta.
T5J 3N6
(403) 428-9111
(CASE OFFICE) same address

Edmonton South:
Pleasantview Professional Bldg.
Room 405
Edmonton, Alta.
T6H 5B4
(403) 436-6533

Grande Prairie:
10135 - 101st Ave.
P.O. Box 10
Grande Prairie, Alta.
T8V 0Y4
(403) 532 [illegible]875

Lethbridge:
Professional Building
Suite 500
740 - 4th Avenue S.
Lethbridge, Alta.
T1J 0N9
(403) 328-9681
(CASE OFFICE) same address

Red Deer:
Riverside Office Plaza
Suite 100
4919 - 59th St.
Red Deer, Alta.
T4N 6C9
(403) 343-3232

Northwest Territories

Yellowknife:
5202 Franklin Ave.
P.O. Box 70
Yellowknife, N.W.T.
X1A 1E2
(403) 873-3565

BRITISH COLUMBIA AND YUKON REGION

Regional Office:

900 W. Hastings St.
Vancouver, B.C.
V6C 1E7
(604) 687-1300

Branch and Case Offices:

Abbotsford:
2467 Pauline St.
Abbotsford, B.C.
V2S 3S1
(604) 853-5561

Campbell River:
1260 Island Highway
Campbell River, B.C.
V9W 2C8
(604) 287-9236

Fort St. John:
9900 - 100th Avenue
Suite 200
Fort St. John, B.C.
V1J 5S7
(604) 787-0622

Kelowna:
260 Harvey Ave.
Kelowna, B.C.
V1Y 7S5
(604) 762-2035

Nanaimo
190 Wallace St.
Nanaimo, B.C.
V9R 5B1
(604) 753-2471
(CASE OFFICE) same address

North Vancouver:
145 - 15th Street W.
North Vancouver, B.C.
V7M 1R9
(604) 980-6571
(CASE OFFICE) same address

Burnaby:
4240 Manor St.
Burnaby, B.C.
V5G 3X5
(604) 438-3581

Cranbrook:
30 S. 11th Avenue
Cranbrook, B.C.
V1C 2P1
(604) 426-7241
(CASE OFFICE) same address

Kamloops:
235 First Ave.
Kamloops, B.C.
V2C 3J4
(604) 374-2121
(CASE OFFICE) same address

Langley:
20316 - 56th Avenue #101
Langley, B.C.
V3A 3Y7
(604) 533-1221
(CASE OFFICE) same address

New Westminster:
227 - 6th Street
New Westminster, B.C.
V3L 3A5
(604) 525-1011
(CASE OFFICE) same address

Prince George:
299 Victoria St.
Prince George, B.C.
V7L 5B8
(604) 563-0641
(CASE OFFICE) same address

Terrace:
4548 Laklese Ave.
Terrace, B.C.
V8G 1P8
(604) 635-4951

Vernon:
3303 - 30th Street
Vernon, B.C.
V1T 5E4
(604) 545-7215

Williams Lake:
30A North, Third Ave.
Williams Lake, B.C.
V2G 2A2
(604) 398-8233

Yukon Territory

Whitehorse:
204 Lambert St.
Whitehorse, Yukon Territory
Y1A 1Z4
(403) 668-4030

Richmond:
4040 - No. 3 Road
Room 100
Richmond, B.C.
V6X 2C2
(604) 273-8611
(CASE OFFICE) same address

Vancouver:
885 Densmuir St
Vancouver, B.C.
V6C 1N7
(604) 681-7484
(CASE OFFICE) same address
same address

Victoria:
990 Fort St.
Victoria, B.C.
V8V 3K2
(604) 388-0161
(CASE OFFICE) same address

INVESTMENT POLICY

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INVESTMENT POLICY

1. INVESTMENT CANADA & POLICY

Investment Canada has been mandated to reflect in a highly visible way the vision and direction of the government and its commitment to stimulating investment, encouraging the transfer of ideas and technology, creating employment and fostering entrepreneurship.

The government has recognized that investment in its broadest sense is critical, if Canada is to remain competitive. Guided by these principles, Investment Canada has consciously taken a strategic approach to addressing the new investment environment that exists in Canada and internationally. We have had the opportunity to present our strategic analysis and outlook to the provinces and select private sector groups and they have concurred that this government's approach to investment is one with which they agree.

The investment environment has changed dramatically over the past few years due to economic uncertainty and volatility, the tremendous increase in the use of technology, new determinants for competitiveness and the trend towards product specialization and enhanced product quality. In addition, there have been fundamental shifts in the sources of investments, their worldwide destinations and the criteria for investment.

Investment, because of rapid technology diffusion rates and market pressures, is also taking on new forms. Where traditionally the branch plant was the main answer, we are increasingly seeing the development of "strategic alliances" with other countries and companies. These reflect ventures, technology transfer, management exchange, marketing and co-production agreements, licensing, etc.

Investment Canada in collaboration with External Affairs, Department of Regional Industrial Expansion and other federal agencies, the provinces and the private sector is positioning itself to confront these changes, to ensure the investment development program and services are designed to respond to new market realities and to encourage the type of investment, which will enhance Canadian industry and ensure its future competitiveness. Investment Canada recognizes the need not only to increase awareness among Canadians of the importance of new investment, but to increase the awareness of the international investment community that Canada is an attractive and profitable place to do business.

In its efforts to encourage all forms of investment in Canada, Investment Canada is acting as a focal point in marshalling Canadian private and public sectors' efforts. In this regard, its objectives will not be realized unless we can demonstrate consistency and a level of certainty for business as reflected in government policies.

Investment Canada is committed to consulting with the provinces and territories in order that federal promotional activities will reflect regional priorities within a cohesive national investment development strategy. Finally, no investment development effort can be successful without the full cooperation of the private sector, which is being generated in a wide variety of ways.

In light of the government's priorities, the input of other government departments, provinces, and the private sector and based on our assessment of the international environment, we have identified the following as being key priorities:

1. To encourage innovation and the use of more technology to make existing industries more competitive;
2. To heighten the level of entrepreneurship and to stimulate new ideas and business opportunities;
3. To encourage and facilitate the development of strategic alliances and cooperative relationships resulting in the private and public sector working together and to stimulate productive relationships between firms within Canada and abroad;
4. To encourage greenfield investment;
5. To encourage business expansion and retention;
6. To promote global competitiveness and thinking; and
7. To further stimulate capital markets for Canadian companies and to promote increased portfolio investment.

1.1 Investment Canada's Services

In concentrating on these priorities and in order to facilitate efforts of investors, Investment Canada offers a number of services. For information on energy costs across the country; regional centres of advanced technology; technological infrastructure; industrial profiles; federal and provincial industrial incentives; joint ventures and licensing arrangements; or, for assistance to, identify contacts in the public and private sectors coast to coast; define your investment proposals, identify potential investment opportunities and partners; identify sources of capital and technology, call our Investment Counsellors at 1-800-267-0490 (toll-free across North America) or (613) 996-7869. For advance on: interpretation and application of the Investment Canada Act; general information on other federal legislation that affects your business, call our Legal staff at (613) 992-5478, or consult your nearest Canadian Embassy or Consultate.

1.2 Canada's Foreign Investment Policy

In June 1985, the Investment Canada Act, creating Investment Canada, became law, replacing the Foreign Investment Review Act. The fundamental purpose of Investment Canada is to encourage and facilitate investment from domestic and international sources. The Agency is also conducting research to provide policy advice that will ensure Canada is an attractive and productive place to do business.

Changes in the global economic system dictate that Canada must immediately improve, substantially, its international competitiveness in order to provide jobs for Canadians in the future. As an integral part of becoming more internationally competitive, the level of business investment in Canada must increase.

Canada's new attitude towards foreign investment is perhaps best summarized in a paper presented by The Right Honourable Joe Clark, Secretary of State for External Affairs, titled "Competitiveness and Security: Directions for Canada's International Relations".

"Investment is essential to competitiveness. It sustains expansion, creates jobs, generates technological skills and knowledge, provides a capital stock for future expansion and eases and facilitates the process of economic structural adjustment. Our own recent investment performance has been dampened by sluggish growth and soft resource prices. High real interest rates have encouraged many investors to put their money into debt instruments rather than equity. Much of the investment in Canada will be generated at home but we will need more, and the competition for foreign investment may be intense. Our ability to attract foreign investment depends on our productivity, our receptivity and the returns investors can expect". The Investment Canada Act is the cornerstone of Canada's foreign investment policy.

2. INVESTMENT CANADA ACT (the Act)

The Act recognizes that Canada must compete internationally for capital and technology and to ensure opportunities to expand abroad with capital and technology developed in Canada while at the same time retaining the option to intervene to ensure that foreign control of major economic and culturally sensitive activities is in the Canadian interest. Thus, the main thrust of The Act gives the government a mandate to encourage investment in Canada by Canadians and non-Canadians, while retaining authority to review and assess both takeovers of important Canadian businesses by non-Canadian investors as well as the establishment of new businesses in culturally-sensitive sectors by non-Canadians, to ensure net benefit to Canada.

Investment Canada, a federal government agency, has been created to advise and assist the Minister in the administration of the Act. It will also carry out the new positive role which the Act has bestowed upon it. There are two separate and distinct aspects of the new mandate - the encouragement of investment (both domestic and foreign) in Canada, and the regulatory function involving the review and assessment of significant investments by non-Canadians in Canadian businesses. The Minister responsible for the administration of the Act is the Minister of Regional Industrial Expansion.

2.1 Encouragement of Investment

As part of its new mandate, Investment Canada seeks to encourage and facilitate the growth of business investment, including the transfer of know-how and technology. One of the primary roles of the new Agency is therefore to ascertain and respond to the aims and needs of both Canadian and non-Canadian investors. This is done in conjunction with Canada's trade services at home and abroad, as well as other government departments which have complementary objectives.

It is anticipated that Investment Canada will also work closely with the provinces, the banking and business communities, as well as other agencies, in order to carry out its new mandate.

2.2 The Regulatory Aspects of the Act

In sharp contrast to the old Foreign Investment Review Act (FIR Act), the Act has raised the thresholds for the review of foreign investment proposals and exempted certain other transactions from review. The net effect of the Act is that approximately 10 percent of the foreign investment proposals which had previously been subject to review under the FIR Act will be reviewable. Generally, proposals which will not be reviewable will be: the establishment of a new Canadian business; the acquisition of control of a Canadian business whose assets are $5 million or less; and the incidental acquisition of control of a Canadian business through the acquisition of control of its parent outside Canada, provided the assets of the Canadian business do not exceed either $50 million or 50 percent of the value of the assets of the global transaction. For smaller acquisitions and establishments of new businesses, non-Canadian investors need only notify the Agency of the investment.

Reviewable proposals are those acquisitions of control of a Canadian business which exceed the aforementioned thresholds and, at the option of the government, those acquisitions below the thresholds or new business proposals in Canada's cultural industries that are prescribed in the Investment Canada Regulations.

Appendix I provides more detailed information about the review process and the key features of the Act.

2.3 Review of Proposals Relating to National Identity and Cultural Heritage (NICH)

The new Act recognizes that Canada requires safeguards for its national identity and cultural heritage and has retained the option of the review procedure for investments in certain cultural activities, specifically:

- publication, distribution or sale of books, magazines, periodicals or newspapers in print or machine-readable form;
- production, distribution, sale or exhibition of film or video products;
- production, distribution, sale or exhibition of audio or video music recordings; and
- publication, distribution or sale of music in print or machine-readable form.

On June 6, 1985, the Minister of Communications issued a policy statement on foreign investment in the book publishing and distribution industry. The policy statement is reproduced as Appendix II.

3. OTHER LIMITATIONS

3.1 Federal Limitations

Certain activities which are regulated by federal legislation have limits as to the level of foreign ownership of a business in a particular industrial sector or of an entire industry sector. The following is a list of some of the federal legislation limiting foreign ownership, and a brief description of how foreign ownership is limited.

Federal Act	Description of the Limitations
Bank Act	- Canadian "Schedule A" banks can have no total foreign ownership greater than 25 percent. - "Schedule B" banks (foreign-owned banks in Canada) are limited, as a group, to 16 percent of the total domestic assets of the entire Canadian banking system.
Broadcasting Act	- foreign ownership in broadcasting Act facilities, including television stations, radio stations and networks of stations, is limited to 20 percent.
Canadian and British Insurance Company Act	- there are no ownership restrictions with respect to the establishment of a life insurance company in Canada by a foreign investor. However, this Act limits non-resident ownership in an existing Canadian-owned life insurance company to 26 percent in the aggregate. Shareholdings by individual non-residents are limited to 10 percent.
Trust Companies Act	- limits foreign ownership in a trust company to a total of 25 percent of the capital stock with no single foreign shareholder owning more than 10 percent of the capital stock.
Loan Companies Act	- limits the foreign ownership in a loan company to the same percentage ownership as that stipulated for a trust company - namely 25 percent of total and 10 percent of single ownership.

3.2 Provincial Limitations

Some of the provinces have laws which limit the business activities of foreign investors in provincially sensitive areas. Limitations on foreign investors vary from province to province, and range from a special tax on the acquisition of agricultural land, to ownership limitations in nursing homes, to laws similar to federal legislation with respect to provincially incorporated financial institutions and insurance companies. Book publishing and distribution are particularly sensitive areas covered by legislation in Ontario and Quebec.

4. REMITTANCE OF FUNDS

There are no restrictions on the foreign investor's ability to repatriate his investment or profits. Canada has no exchange controls and the Canadian currency is freely convertible to U.S. or other currencies. There are, however, withholding taxes on the payment to non-residents of dividends, interest, salaries, bonuses, commissions or other amounts for services rendered.

APPENDIX I

The new Investment Canada Act creating Canada's new investment Agency, Investment Canada, came into force in Canada on June 30, 1985. By replacing the Foreign Investment Review Act, it represents a major shift in Canada's policy towards investment in Canada from non-Canadian sources. The most important changes resulting from the enactment of this new legislation can be summarized as follows:

(a) the clear expression of a positive attitude towards outside investment in Canada
(b) a mandate for the new investment agency, Investment Canada, to establish, as its major goal, an organization and program devoted to the encouragement of investment in Canada from both Canadian and non-Canadian sources
(c) a new regulatory arrangement featuring (1) an investment review process linked to certain significant investments only and designed to minimize delays and increase fairness to investors; (2) increased scope for non-Canadian investors to participate in investment ventures without affecting the Canadian status of these ventures.

PURPOSE STATEMENTS

The essence of the change from the Foreign Investment Review Act (hereafter, the "FIR Act") to the Investment Canada Act can be seen most clearly by examining the respective purpose clauses contained in the two statutes. The FIR Act, born in a time of national concern over high levels of foreign ownership in Canada, incorporated a statement of this concern in its purpose clause:

"This act is enacted by the Parliament of Canada in recognition by Parliament that the extent to which control of Canadian industry, trade and commerce has become acquired by persons other than Canadians and the effect thereof on the ability of Canadians to maintain effective control over their economic environment is a matter of national concern, and that it is therefore expedient to establish a means by which measures may be taken under the authority of Parliament to ensure that, insofar as is practicable after the enactment of this Act, control of Canadian business enterprises may be acquired by persons other than Canadians, and new businesses may be established in Canada by persons other than Canadians, who are not already carrying on business in Canada or whose new businesses in Canada would be unrelated to the businesses already being carried on by them in Canada, only if it has been assessed that the acquisition of control of those enterprises or the establishment of those new businesses as the case may be, by those persons is or is likely to be of significant benefit to Canada having regard to all of the factors to be taken into account under this Act for that purpose."[1]

This is to be contrasted with the statement of purpose found at the beginning of the Investment Canada Act:

"Recognizing that increased capital and technology would benefit Canada, the purpose of this Act is to encourage investment in Canada by Canadians and non-Canadians that contributes to economic growth and employment opportunities and to provide for the review of significant investment in Canada by non-Canadians in order to ensure such benefit to Canada."[2]

This statement reflects a basic belief in the benefits to Canada of investment by Canadians and non-Canadians alike while acknowledging that the government has a responsibility to ensure that, in the case of significant investments of major impact, this fundamental belief in the benefits of investments is justified for those particular cases.

The purpose clause in the Investment Canada Act directs the new Agency to carry out its administration of the residual regulatory role in harmony with its main investment development role by working with investors in the context of both the development and the review processes to produce investments of benefit to Canada. The primacy of the development role in the priorities of the Agency is obvious when the list of duties charged to the Minister by the Act is examined:

"The Minister shall

(a) encourage business investment by such means and in such manner as the Minister deems appropriate;

(b) assist Canadian businesses to exploit opportunities for investment and technological advancement;

(c) carry out research and analysis relating to domestic and international investment;

(d) provide investment information services and other investment services to facilitate economic growth in Canada;

(e) assist in the development of industrial and economic policies that affect investment in Canada;

(f) insure that the notification and review of investments are carried out in accordance with this Act;

(g) perform all other duties required by the Act to be performed by the Minister."

The new ideas and directions in the purpose clause of the Investment Canada Act are also of legal significance since it can be expected that the Courts will not ignore the spirit expressed in it when they are called upon in the future to interpret the new Act.

INVESTMENT DEVELOPMENT

To carry out the new mandate to encourage new investment in Canada, the Investment Development Division of Investment Canada has been established. This division will be responsible for the development of programs related to investment promotion and the delivery of practical services to investors. In furtherance of these goals, it will work closely with the federal Departments of External Affairs and Regional Industrial Expansion, Canadian provincial and territorial governments and business associations in Canada.

At the present time, the three main initiatives of the Investment Development Division are: investment missions and seminars, communications and advertising and investors' services. Recent examples of these initiatives include the investment mission to Japan and South Korea headed by the Investment Canada Minister, the Honourable Sinclair Stevens, and the President of Investment Canada, Paul Labbé, the major international advertising campaign currently under way and "The Canadian Edge", a comprehensive data base on doing business in Canada prepared by Investment Canada, access to which is now being made available to investors.

REGULATORY PROVISIONS OF THE INVESTMENT CANADA ACT

The balance of this article will examine the regulatory provisions of the Investment Canada Act. This discussion will seek to (1) outline some of the key features of the new legislation (2) identify some of the most important changes in the new regulatory system created by the Act, contrasting the new features with those of the FIR Act; and (3) note some of the administrative policies that Investment Canada will follow in its administration of the new Act.

In considering whether an investment will be affected by the regulatory provisions of the Act, it is best to start by examining whether the investment in question is an investment "subject to the Act". Generally speaking, investments which are "subject to the Act" are investments by non-Canadians to acquire control of Canadian businesses or to establish new Canadian businesses, as these terms are defined by the Act. If , on its facts, the investment is not an investment "subject to the Act", the Act is of no application.

Investments which are "subject to the Act" are, in turn, either (1) subject to the review procedure, requiring approval for implementation or (2) subject only to a minor notification procedure, requiring only a brief information filing without further restriction on implementation. Most investments will fall into the latter category, leaving the review procedure applying only to a few of the most significant of investments. Under the FIR Act, all investments subject to that Act were reviewable. Consequently, under the Investment Canada Act, the scope of the review process has been greatly restricted, thereby allowing most investments in Canada by non-Canadians to proceed without review.

The key elements to be examined in order to determine whether an investment is "subject to the Act" are (1) whether the investor is "Canadian" or "non-Canadian" (2) whether the business activity constitutes a "Canadian business" (or "new Canadian business") and (3) whether, in the case of acquisitions, an "acquisition of control" has occurred.

1. Canadian and Non-Canadian Investors

Since investments made by "Canadians" are not subject to the Act, it is vital to establish whether the person, government, corporation, partnership, trust or joint venture which is making the investment is "Canadian" or "non-Canadian" under the provisions of the Act. The definitions and rules establishing the status of an investor have been significantly changed from those which existed under the FIR Act (the equivalent terms used under that Act were "eligible" and "non-eligible").

These changes have a particular impact with respect to non-incorporated forms of business organizations. The net effect is to increase the ability of a non-Canadian to participate with Canadians in an investment through an investment vehicle (for example, a corporation or a joint venture) without causing that vehicle to be deemed to be non-Canadian, thereby making the investment subject to the Act.

(a) Individuals - Under the Investment Canada Act, individuals who are "Canadian" include:

> "(a) a Canadian citizen,
> (b) a permanent resident within the meaning of the Immigration Act, 1976 who has been ordinarily resident in Canada for not more than one year after the time in which he first became eligible to apply for Canadian citizenship".[3]

Under the FIR Act, Canadian citizens who were not resident in Canada were often treated as not being "Canadians" whereas under the new legislation, Canadian citizens are considered to be "Canadian" no matter where resident.

(b) Governments - Under the Investment Canada Act, "Canadian" includes:

> "(c) Any Canadian government, whether federal, provincial, or local, or an Agency thereof"[4]

This is essentially the same provision as existed in the FIR Act.

(c) Corporations - The definition of "Canadian" under the Investment Canada Act includes:

> "an entity ("Entity" includes corporations, trusts, partnerships and joint ventures) that is Canadian-controlled, as determined pursuant to (other provisions of the Act)"[5]

The basic rules for determining the status of an entity, including corporations, are set out in subsection 26(1):

"For the purposes of this Act

(a) where one Canadian or two or more members of a voting group[6] who are Canadians own a majority of the voting interests of an entity, it is a Canadian-controlled entity;

(b) where paragraph (a) does not apply and one non-Canadian or two or more members of a voting group who are non-Canadians own a majority of the voting interests of an entity, it is not a Canadian-controlled entity;

(c) where paragraphs (a) and (b) do not apply and a majority of the voting interests of an entity are owned by Canadians and it can be established that the entity is not controlled in fact through the ownership of its voting interests by one non-Canadian or by a voting group in which a member or members who are non-Canadians own one half or more of those voting interests of the entity owned by the voting group, it is a Canadian-controlled entity; and

(d) where paragraphs (a) to (c) do not apply and less than a majority of the voting interests of an entity are owned by Canadians, it is presumed not to be a Canadian controlled entity unless the contrary can be established by showing that

(i) the entity is controlled in fact through the ownership of its voting interests by one Canadian or by a voting group in which a member or members who are Canadians own a majority of those voting interests of the entity owned by the voting group, or

(ii) in the case of an entity that is a corporation or a limited partnership, the entity is not controlled in fact through the ownership of its voting interests and two-thirds of the members of its board of directors, or, in the case of a limited partnership, two-thirds of its general partners are Canadians."

These rules are largely self-explanatory and apply to both corporations and unincorporated entities. The rules should be compared in sequence to the facts of a particular investment, each rule in turn being eliminated until the provision which fits the particular situation is reached.

The principal concept relating to control is the ownership of "voting interests" which, in the context of a corporation, means the ownership of "voting shares". A "voting share" is defined as being:

The capital of a corporation to which is attached a voting right ordinarily exercisable at meetings of shareholders of the corporation and to which is ordinarily attached a right to receive a share of the profits, or to share in the assets of the corporation on dissolution, or both."[10]

It should be noted that the definition is directed towards restricting the meaning of "voting shares" to include only those shares which have both voting rights and equity rights.

Under the FIR Act, a corporation was non-Canadian if it was "controlled in any manner that results in control in fact, whether directly through the ownership of shares or indirectly through a trust, a contract, the ownership of shares of any other corporation or otherwise by a (non-Canadian) or by a group of persons any member of which is a (non-Canadian)".[11] Unlike the Investment Canada Act, this meant that the status of a corporation could be determined by a factor such as a contract or a personal relationship, quite apart from the ownership of voting shares. Also, under the FIR Act, a corporation was a non-Canadian if it was controlled in fact by a group of persons, any member of which was non-Canadian. This "group concept" meant that where a number of shareholders were acting together through a shareholder agreement and one member of the group was non-Canadian, the entire group was viewed as being non-Canadian even though the Canadians in the group might hold 90 percent of the interests held by the group. This was clearly unsatisfactory.

The new status rules in section 26 avoid the extreme results created under the FIR Act rules. For example, under the FIR Act, where a corporation had two shareholders, one Canadian and one non-Canadian, and the Canadian held 51 percent of the shares and the non-Canadian 49 percent and both shareholders were bound by a shareholders' agreement, the corporation was viewed as controlled by a group which include a non-Canadian and, therefore, the corporation itself was deemed to be non-Canadian, even though the Canadian shareholder held 51 percent of the shares. Under the Investment Canada Act, since one Canadian owns a majority of the voting shares of the corporation, the corporation would be deemed to be "Canadian".

Corporations which are owned equally (50 percent/50 percent) by a Canadian and a non-Canadian are deemed to be non-Canadian under section 26(6).

The Investment Canada Act also provides that public corporations which, under the basic status rules, are non-Canadian may receive a special Canadian status if they meet certain criteria relating to Canadian ownership of their shares and autonomy for their Canadian management.

(d) Partnerships and Joint Ventures

Under the Investment Canada Act, unincorporated entities such as partnerships and joint ventures are treated as "entities" and therefore, generally speaking, have their status determined under the same rules that apply to corporations: subsection 26(1). A "voting interest" in the case of an unincorporated entity means:

> "an ownership interest in the assets thereof that entitles the owner to receive a share of the profits and to share in the assets on dissolution".[7]

These status rules are radically different from the status rules for unincorporated entities that existed under the FIR Act. Under that Act, partnerships and joint ventures were considered to be "groups" and, as previously discussed in the context of corporate shareholders, if any member of the "group" was non-Canadian, the "group" itself was non-Canadian no matter how small the interest held by the non-Canadian.

Now, under the Investment Canada Act, if a non-Canadian investor takes a 49 percent interest in a joint venture, with a Canadian holding the remaining 51 percent, the joint venture will be treated as being "Canadian". Any investment made by that joint venture will be entirely exempt from the regulatory provisions of the Investment Canada Act.

It is hoped that this new rule will encourage non-Canadians to form joint ventures and partnerships with Canadians in making their investments in Canada.

2. "Canadian Business"

Where it is established that the person making the investment is a non-Canadian, it is then necessary to confirm that the investment involves the acquisition of a "Canadian business" or the establishment of a "new Canadian business".

A "Canadian business" means

"a business carried on in Canada that has

(a) a place of business in Canada,
(b) an individual or individuals in Canada who are employed or self-employed in connection with the business, and
(c) assets in Canada used in carrying on the business".[8]

A "new Canadian business" means

> "a business that is not already being carried on in Canada by the non-Canadian and that, at the time of its establishment is unrelated to any other business being carried on in Canada by that non-Canadian...."[9]

"Business", a term which is incorporated in both prior definitions, is defined as being "any undertaking or enterprise capable of generating revenue and carried on in anticipation of profit".[15] This latter definition has been expanded from the definition contained in the FIR Act which spoke of a business being "carried on in anticipation of profit".[16] The effect of the change is to eliminate from the concept of business such activities as mining exploration and marketing research which by themselves would not be capable of generating revenue.

As a result, in order to be considered a "Canadian business", an activity must first qualify as a "business" and, in turn, to qualify as a "new Canadian business" an activity must be both a "business" and a "Canadian business". A "Canadian business" comes into existence and a "new Canadian business" is established, for the purposes of the Act, when all the criteria set out in the definition of "Canadian business" come into existence: a place of business, employees and assets.

3. Acquisition of Control Rules

A transaction which involves a non-Canadian acquiring assets or shares or other voting interests relating to a "Canadian business" will not be reviewable unless it is an "acquisition of control of the Canadian business" pursuant to the rules contained in the Investment Canada Act.

Subsection 28(1) establishes that control of a Canadian business may only be acquired through the acquisition of (1) assets or (2) voting interests (including voting shares) and only in the following ways:

> (1) assets: through the acquisition of all or substantially all of the assets used in carrying on the Canadian business
>
> (2) voting interests: through the acquisition of voting interests of the entity that carries on the Canadian business or through the acquisition of the voting interests of an entity that controls, directly or indirectly, another entity that carries on the Canadian business. (However, where the entity that carries on the Canadian business is a corporation incorporated outside of Canada, there is no acquisition for the purposes of the Act.)

Any other kind of acquisition which does not fall into one of the above descriptions cannot constitute an acquisition of control within the meaning of the Act.

In addition, the acquisition of voting interests of a corporation or other entity, will not constitute the acquisition of control of the corporation or other entity in question unless the acquisition also meets the tests set out in subsection 28(3). These tests may be summarized as follows:

Corporations:

-acquisition of a majority of the voting shares of a corporation is deemed to be acquisition of control of that corporation

-acquisition of one-third or more but less than a majority of the voting shares of a corporation is presumed to be acquisition of control of the corporation unless it can be established that, on the acquisition, the corporation is not controlled in fact by the acquiror through the ownership of voting interests

-acquisition of less than one-third of the voting shares of a corporation is deemed not to be acquisition of control of the corporation

Unincorporated Entities:

-acquisition of a majority of the voting interests of an entity is deemed to be acquisition of control of that entity

-acquisition of less than a majority of the voting interests of an entity other than a corporation is deemed not to be acquisition of control of that entity

In summary, control of a Canadian business is only acquired through the acquisition of all or substantially all of the assets used in carrying the Canadian business or through acquisition of control of the entity carrying on the Canadian business or of an entity which controls the entity carrying on the Canadian business. Control of an entity can only be acquired through acquisition of the voting interests of the entity. The acquisition of voting interests of an entity will not amount to an acquisition of control of that entity unless the acquisition is sufficient in size to meet the tests set out in section 28(3).

These rules are substantially different from the rules set out in the FIR Act which relied primarily on a general "control in fact" test. This broad test swept all facts into the analysis with little guidance as to how they should be be weighed. It was accompanied by a series of rebuttable presumptions but these were triggered by factors such as an acquisition of shares as small as 5 percent of the total shares of the corporation in question. The new rules are more objective and more liberal than those that existed under FIR Act.

Finally, the acquisition of contingent rights to acquire either assets or voting interests is not deemed under the Investment Canada Act to be actual acquisitions of those assets or voting interests, as was the case under the FIR Act. This change will avoid some difficult problems that occurred under the old legislation. However, if a non-Canadian who is acquiring an absolute right wishes to treat that right as if it had been exercised in order to obtain regulatory approvals at the time of its acquisition, he may do so.

4. Review and Notification

An investment, which meets the definitional tests discussed above, and is, therefore, an investment by a "non-Canadian" to "acquire control of Canadian business" or "to establish a new Canadian business", is an investment which is "subject to the Act". It must then be determined whether this investment is subject to the review process or subject only to the notification procedure.

(a) Review

An investment subject to the Act is reviewable only if it is reviewable under either section 14 or section 15 of the Act.

Establishments of new businesses are not reviewable under section 14.

Section 14 of the Act divides acquisitions of control of Canadian business into two categories and establishes thresholds based on asset values for each category to determine which acquisitions are reviewable and which are not. The first category, which includes all direct acquisitions of control of entities carrying on Canadian businesses as well as those indirect acquisitions not included in the second category, sets a threshold of $5 million[17]. The second category, which consists of those indirect acquisitions where (1) there is an acquisition of control of a corporation incorporated outside Canada and (2) where the majority of the assets affected by the entire international transaction are outside of Canada,[18] sets a threshold for review at $50 million.

Given these thresholds, reviewable acquisitions of control include only:

(1) direct acquisitions over $5 million,

(2) indirect acquisitions, which don't involve a corporation outside of Canada or which do involve such a corporation but where the assets affected are located primarily in Canada, over $5 million and

(3) indirect acquisitions, which do include a corporation outside of Canada and where the assets affected by the transaction are located primarily outside of Canada, over $50 million.

Section 15 of the Act is a special provision under which an investment, either a new business or an acquisition, which is subject to the Act but is not subject to review under section 14, and which falls into certain business activities related to Canada's cultural heritage or national identity (the government has designated these to include books, magazines, periodicals, newspapers, music, films, video and audio), may be made reviewable upon the issuance of an order for review by the government. Therefore, an investment which is not reviewable under section 14 and which falls into one of the prescribed culturally sensitive areas may become reviewable if the government chooses to issue an order that it be reviewed. If no such order is issued, the investment remains non-reviewable and subject only to the notification procedure.

(b) Notification

All investments which are subject to the Act but which are not reviewable under section 14 or section 15 are subject only to the requirement that they provide notice of the investment to the government and have no further restriction on their implementation.

Under the FIR Act, generally speaking, all investments which were subject to the Act as either acquisitions of Canadian businesses or establishments of new businesses were automatically reviewable. Only minor exceptions to this general rule were available. Therefore, the introduction of the new thresholds for the reviewability of the acquisitions coupled with the general exemption for new businesses is the most dramatic change from the previous legislation. As a result, all new businesses and lesser acquisitions are exempt from regulatory review restrictions, leaving the review process to deal only with the most significant acquisitions.

5. Exemptions

It should also be pointed out that the Investment Canada Act also contains in section 10 a number of general exemptions from the Act. These exemptions, while generally similar to those contained in the FIR Act, have been clarified and some new provisions have been added. Exemptions dealing with security dealers, venture capitalists, realization of security, government vendors and banks are similar to those in the FIR Act. Provisions dealing with temporary financing, corporate reorganizations, farms, certain involuntary acquisitions and certain insurance companies are largely new.

REVIEW PROCESS

The review process under the Investment Canada Act may be briefly described as follows. Where an investment is reviewable, the investor submits an application for review to Investment Canada prior to the implementation of the investment (exemptions allow for later filing in certain cases). Investment Canada manages the review process with the decision being taken by the Minister. The Agency ensures that the Minister receives all the information required to be provided to him according to the Act. The Minister then decides, based on factors set out in the Act, whether or not he is satisfied that the investment is likely to be of net benefit to Canada and the investor is so notified.

If the decision is negative, the investor has a further period to make further representations to the Minister so that he may reconsider his decision. If the Minister is satisfied, then the investment may be implemented (or carried on if the application was filed after implementation pursuant to an exemption).

The new review process includes a number of significant changes from the review process which existed under the FIR Act. Under the FIR Act, the decision as to whether a particular investment would be allowed was made by the cabinet. Now, under the Investment Canada Act, it is only the Minister who decides whether he is satisfied that the investment is likely to be of "net benefit" to Canada. This change will have a significant effect in reducing delays in decision-making.

Under the FIR Act, the test that the investment had to meet was that it be of "significant benefit" to Canada. The new "net benefit " test is clearly a somewhat easier test and accords with the general philosophy of the Act regarding the benefits of investment in Canada.

The factors that the Minister must use in assessing the net benefit of the investment incorporate all of the factors used under the FIR Act including those dealing with economic activity, participation by Canadians, productivity, technological development, competition and compatibility with national policies. However, two additions have been made by adding references to compatibility with cultural policies and Canada's ability to compete in world markets.

One of the major sources of complaint concerning the FIR Act review process concerned delays in the time taken to make decisions on investments. The FIR Act allowed a basic 60-day period for decisions but this could be unilaterally extended by the government for an unlimited period of time. Under the Investment Canada Act, the basic period has been reduced to 45 days and the government has available to it only one unilateral extension period of thirty days. Any further extensions of time require the consent of the investor. In the event of a negative decision by the Minister, the investment is accorded a 30-day period to make further representations to the Minister. In practice, administrative changes in the FIR review procedure, which date from 1982, were such as to eliminate most of the delays that had been cause for complaint. The new legislation incorporates these administrative reforms.

The administrative practice of the Investment Canada Act will include a reduction in emphasis on undertakings given by investors. While undertakings were frequently requested under the FIR Act, as a general rule, under the Investment Canada Act, such undertakings will not be needed when the investor's plans for the business have been set out in detail. However, in some situations, specific undertakings may be suggested to provide greater assurances when issues, critical to the determination of net benefit, arise.

Investment Canada will administer the new Act in such a manner as to accord fairness to the investor. When unsolicited representations are received by the Agency from third parties that could have an adverse bearing on the determination of net benefit, applicants will be advised as to the substance of those representations and given an ample opportunity to respond to them if this is desired. The identity of the person making such representations will not be disclosed to applicants. Information provided to the government by the applicant will not be divulged to a third party intervenor without the consent of the applicant. The Minister may use facts revealed by an alternative buyer which are relevant to the factors to provide additional perspective in the assessment of the applicant's investment. However, any plans or intentions disclosed by the alternate buyer will not be compared with, nor influence the assessment of the applicant's investment on its own merits.

Investors are encouraged to consult with the Agency prior to filing for review so that the Agency can provide its advice and assistance. In addition, as an administrative practice, the Agency will advise an applicant prior to the making of any recommendation to the Minister of any matters which the Agency, in its best judgment, believes may delay or cause the Minister concern or difficulty making his decision. The applicant will be invited to respond to the identified issues in order to demonstrate more clearly net benefit.

After an investment has been approved, the Investment Canada Act provides that Investment Canada may monitor the implementation of the investment to determine whether the investment is being carried out in accordance with the application and any representations made or undertakings given in relation to the investment. This provision is essentially the codification of practice that existed under the FIR Act. This follow-up procedure will consist of a single evaluation eighteen months after implementation. If the investment has been implemented substantially consistent with the original expectations and subsequent economic considerations and there are no major commitments yet to be fulfilled, no further monitoring will ordinarily take place.

The Act provides that the Minister may issue and publish guidelines and interpretation notes on the provisions of the Act for the assistance of investors. To date, interpretation notes have been issued with respect to defunct businesses, "part of a business", "all or substantially all of the assets" and "business". Guidelines have been issued incorporating the administrative procedures discussed above and with regard to the meaning of related business.

OPINIONS

The new Act provides that the Minister may provide, upon application, a written opinion to any one as to the possible effect of the Act upon that person. In the case of questions concerning the status of the applicant, as a Canadian or non-Canadian, the Minister must provide the opinion upon application. This is an improvement upon the FIR Act under which opinions of the Minister were available only with respect to status or whether one business was related to another. Informal opinions were made available but these were not binding.

SUMMARY

The provisions of the Investment Canada Act represent a significant change from the FIR Act and provide a new and better framework for investors wishing to invest in Canada. In addition to the new direction offered and the mandate for investment development, the legislation incorporates a restricted and improved regulatory process including:

(a) removal of all smaller acquisitions and all establishments of new businesses from the review process while retaining a discretionary power to review investments affecting certain culturally sensitive industries,

(b) decisions on reviewable investments to be taken by the Minister rather than by the Cabinet,

(c) a new basic test for reviewable investments of "net benefit",

(d) the establishment of much stricter time limits for the period allowed for the completion of the review process,

(e) new definitions for "Canadian" and "non-Canadian" which reduce the number of investment arrangements which are considered to be non-Canadian and which will permit greater flexibility for non-Canadian investors particularly in the area of non-incorporated ventures,

(f) increased opportunity to obtain binding written opinions from the Minister responsible for the Act.

Investment Canada has been established in order to assist in the development and enhancement of investment in Canada and investors are encouraged to contact officials at the Agency with respect to any of the matters discussed in this article or with respect to any matters dealing with investment in Canada, generally.

NOTES

1. S.C. 1984-85, c. 20
2. S.C. 1973-74, c. 46, amended S.C. 1976-77, c. 52
3. F.I.R. Act, ss. 2(1)
4. I.C. Act, s. 2
5. I.C. Act, s. 5
6. I.C. Act, s. 3
7. I.C. Act, s. 3
8. I.C. Act, s. 3
9. "voting group" is defined as "two or more persons who are associated with respect to the exercise of rights attached to voting interests in an entity by contract, business arrangement, personal relationship, common ownership control in fact through the ownership of voting interests, or otherwise, in such manner that they would ordinarily be expected to act together on a continuing basis with respect to the exercise of those rights.": I.C. Act, s. 3

10. I.C. Act, s. 3
11. F.I.R. Act, ss. 3(1)
12. I.C. Act, s. 3
13. I.C. Act, s. 3
14. I.C. Act, s. 3 This term is qualified with respect to investments made in certain culturally sensitive business sectors.
15. I.C. Act, s. 3
16. F.I.R. Act, s. 3(1)
17. The thresholds are based on asset values. For the first category, it includes the total value of the assets, taken together, of the entity carrying on the Canadian business and any other entity in Canada control of which is acquired in the transaction. For the second category, it includes the total value of the assets of the entities in Canada.
18. The value of the assets of the entity carrying on the Canadian business and of all other entities in Canada control of which is acquired.

APPENDIX II

Notes for an address by The Honourable Marcel Masse M.P. for Frontenac Minister of Communications at the announcement of the new policy regarding foreign investment in Canadian publishing.
Baie Comeau, Quebec
July 6, 1985.

Good morning ladies and gentlemen,

1. Introduction

Following a meeting which my colleagues and I have just had with the Prime Minister, here at Baie Comeau, I am in a position to advise you of a decision by this government which will have considerable impact on Canada's most important cultural industry.

In effect, the government of Canada has just, for the first time, adopted a clear and precise policy on the question of foreign investment in the critical sector of book publishing and distribution. While the government is stating clearly that it considers Canadian control of this activity essential, the policy which it is putting forward is positive and fair. Its aim is to improve the financial and cultural condition of this sector of the economy in a progressive manner.

The measures I am announcing today will complete and clarify the government policy on foreign investment which was outlined in the legislation creating Investment Canada. You will no doubt recall that the text of this Act specified that industries of a cultural nature must benefit from special treatment in respect to non-Canadian investment.

Through the policy and the measures which I am announcing today, the government acknowledges that publishing, like broadcasting and the press, is an element essential to our identity and our cultural sovereignty.

2. The Current Situation

The estimated value of Canada's internal publishing and book distribution market reached 1.1 billion dollars in 1985. It is, therefore, a sector which, through its revenues and the employment it provides, occupies an important role in the Canadian economy.

In this vast market, only 18 percent of the English-language books sold come from publishing houses controlled by Canadians. The proportion is slightly higher (26 percent), in the case of French language works. Since 1975, the profit margins of small and medium-sized businesses in publishing and distribution, almost all of which are owned by Canadians, have either remained unchanged or deteriorated. During this same time, profit margins for the large publishing houses, controlled to a large extent by non-Canadian interests, have increased.

This structural imbalance, therefore, has a profound cultural significance, since Canadian publishing houses, which publish and distribute 85 percent of original works by our own authors, can only draw on 20 percent of the revenues emanating from the domestic market. The lack of sufficient capital therefore affects the ability of our firms to publish Canadian authors and to increase their share of the Canadian market. It has now been 15 years since the State began subsidizing Canadian publishing. Government support, which has increased constantly during this time, has still not altered the structural makeup of the publishing and book distribution sector.

It is therefore obvious that, without structural change, the government would have to increase its support, continually, simply to maintain the status quo.

3. To Break the Deadlock

If publishing is to serve the interests of Canadian cultural sovereignty and economic growth, there must be fundamental change. The government has recognized that there exists a direct link between the current condition of Canadian publishing and the role played by non-Canadian investment in this sector of activity. I believe we have created a policy which will respond to our cultural and economic imperatives, and which will nevertheless treat non-Canadian investors positively and fairly.

I believe it is completely legitimate for us to wish, as outlined in our policy, that Canadian publishing be abel to play its full role in the social and cultural life of our country, in every region of Canada, for both official language groups.

4. Review

In the light of this policy statement, the Minister in charge of Investment Canada, Mr. Sinclair Stevens, and myself as Minister of Communications will review all projects relevant to the mandate of Investment Canada which involve the initiation of new book publisning or distribution companies, or the acquisition, directly or indirectly, of existing firms operating in this field.

I am able to state that the government will look with favour on proposals to establish new businesses or to acquire directly existing businesses, whether Canadian or foreign controlled, in the field of book publishing or distribution, provided the investment is through a joint venture with Canadian control. For direct acquisition of foreign controlled businesses, allowances will be possible if divestiture of control to Canadians occurs within a reasonable period of time (two years), at a fair market price.

Indirect acquisitions will be reviewed on a case by case basis and will generally be allowed provided that:

1. The acquisition would not significantly lessen effective competition by Canadians in any segment of the Canadian market for books; and

2. The applicant undertakes to divest control to Canadians within a reasonable period of time (two years) at a fair market price.

5. Full Status for Publishing

Canadians are great consumers of books. In this country, reading follows closely after television as a leisure activity. It is, therefore, only normal that we treat books as an instrument of our culture, in the same way that we regard radio, television, or the press. In order to fulfill its role on the cultural scene, Canadian publishing must, on the one hand, be under Canadian control, and, on the other, be able to influence its own development. Our publishers will not be able to exercise these choices if they do not control a significant share of their own market. This is the goal we seek.

Limitations on non-Canadian ownership has produced impressive results in other areas of cultural activity. Canadian control of broadcasting has given rise to strong growth in this industry. Since 1986, revenues have increased by 700 percent in this sector, which is an average annual increase of 15 percent. Measures aimed at Canadian control also have accelerated the growth of our periodical industry. The profits of Canadian firms working in periodical publishing and distribution have, from 1977 to 1982, been more favourable that those of both the economy in general and the manufacturing sector as a whole. Thanks to this strong performance, our firms have had their own resources to draw on, to finance their own growth.

I therefore feel that our book publishing industry should also have a chance to enjoy such prosperity, for the greater good of all Canadians. It will not be through government aid, but rather through investment by the Canadian private sector, that the publishing industry will finally achieve this strength.

6. A Dynamic Policy

I intend, in the near future, to put forward additional measures which will constitute a dynamic policy for the Canadian publishing industry. The officials of my department will consult with the major players in the sector during the development of these measures.

In order to assure that our industry enjoys an appropriate level of assistance during this period when the needs of the sector in respect to policy are being evaluated, the government has decided to maintain its direct assistance to book publishers and distributors. It has, therefore, agreed to a budget of some 10 million dollars towards the development assistance program for Canadian publishing for the present fiscal year. Thanks to this program, our publishers will be able to obtain financial assistance for the marketing and sale of their books.

7. Conclusion

I believe that the policy the government has just announced will be received favourably. It clearly spells our the rules of the game and the objectives which the government will pursue. We wish simply to assure a fair participation by Canadians in an activity which is at the very heart of our cultural identity.

Finally I would remind you that the Canadian business community has supported this proposition. The President of the Conference Board and the President of the Canadian Chamber of Commerce for example have both recognized that Canadian firms in the cultural domain should be controlled by Canadian interests. Thank you.

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TAXATION AND TAX INCENTIVES

In Canada, all three levels of government (federal, provincial (including Yukon and Northwest Territories) and municipal), levy taxes on both individuals and businesses. The Federal Government collects tax in the form of income tax, indirect sales tax and excise tax, as well as customs duties. The provincial governments impose income tax, retail sales tax, and taxes or royalties on natural resources. At the municipal level, there are property taxes and school taxes. The Federal Government collects and administers income taxes at both the federal and provincial levels. The only exception is the Province of Quebec, which has not entered into a tax collection agreement with the Federal Government, and thus is responsible for collecting and administering its own personal and corporate income taxes. It should be noted that the provinces of Alberta and Ontario administer and collect their own corporate income tax.

1. CORPORATE TAXATION

As a general rule, all corporations resident in Canada are subject to income tax. The tax is levied upon income earned within the taxation year from all sources worldwide. The taxation year of any corporation corresponds directly to its fiscal period for which its annual financial statements are prepared. The basic tax rate is 46 percent on taxable income (which includes taxable capital gains, business income and other forms of investment income) of corporations, less a 10 percent abatement for provincial taxes. The temporary surtax of 5 percent on taxes payable on income not receiving the small business deduction has been extended to the end of 1986 and a 3 percent temporary surtax has been proposed for all corporations beginning January 1, 1987. Proposals in the February 26, 1986 budget call for phased-in reductions of the basic tax rate to 1989 scheduled according to the table below.

TABLE 1

Federal Corporate Income Tax Rate Changes, 1986-1989
(Effective July 1 of Each Year)

	Current Rates*	1987	1988	1989
		(percent of taxable income)		
Manufacturing business	30	28	27	26
Other business sectors	36	35	34	33
Small manufacturing business	10	8	8	8
Other small business	15	14	13	13

* Including 10 percent abatement for provincial taxes.
Source: Minister of Finance, Budget Papers, February 26, 1986.

There are, however, several deductions which reduce the amount of taxable income and the rate at which it is taxed, and most firms, in effect, pay taxes at rates below the basic rate. Measures dealing with Cape Breton, for instance, reduce federal income tax to zero for qualifying firms, for 10 to 15 years. The Income Tax Act requires a taxpayer to adjust his accounting profit or net income for tax purposes, from which certain deductions are then permitted in determining taxable income.

1.1 Payment of Income Tax

A corporation, under the Income Tax Act, is obliged to pay its income tax by monthly installments over a 14 month period. The first monthly installment is due on or before the last day of the first month of the corporation's taxation (fiscal) year. However, a new corporation is not required to pay monthly installments until after its first year of operations.

1.2 Corporate Tax Deductions

1.2.1 General - any reasonable expenditure incurred to produce income is deductible without limit, including such items as entertainment expenses, directors' bonuses, and interest on money borrowed for investment purposes.

1.2.2 Federal Tax Abatement - reduces the basic federal tax rate by 10 percent in respect of income earned in the provinces, the Northwest Territories and the Yukon. No abatement is allowed on income earned outside Canada or in the Nova Scotia offshore area, as no provincial tax is paid on such income.

1.2.3 Dividends which are received from Canadian taxable corporations are allowed to be deducted in full, thereby avoiding double taxation of corporate income at the corporate levels.

1.2.4 Capital Gains - only half of which, net of capital losses, is taxed.

1.2.5 Interest Expense - any interest expense incurred in the process of earning business or property income, or for the purchase of an income producing asset, is fully deductible.

1.2.6 Bad Debts - in the case of doubtful accounts receivable, a reasonable reserve may be claimed for those debts which are unlikely to be collected. Once a debt is known to be bad, it must be written off. Any recovery on a bad debt that has been written off is included in income in the year of receipt.

1.2.7 Losses - the following are allowable deductions in determining taxable income: non-capital losses, net capital losses, farm losses, and restricted farm losses.

LOSSES

TYPE	CARRIED FORWARD	CARRIED BACK
Non-capital	3 years	7 years
Net capital	3 years	indefinite
Farm	3 years	10 years
Restricted Farm	3 years	10 years

1.2.7.1 Allowable Business Investment Loss - is a special provision whereby one-half of any capital losses incurred on the disposal of shares or certain debts of a Canadian-Controlled Private Corporation (CCPC) by a person or corporation with whom the CCPC was dealing at arm's length, may be written off against any income. This deduction is used when the person or corporation has no capital gains during the taxation year to which the capital loss could be applied.

1.3 Corporate Tax Incentives

1.3.1 Business Investment Tax Credit - varies in different regions and for different types of investment. The current basic rate is 7 percent, but can be as high as 60 percent in special regions, such as Cape Breton. This deduction is available on manufacturing plants, as well as machinery and equipment. Any unused credits may be carried back 3 years or forward 7 years. Proposed February 26, 1986 budgetary changes to the Investment Tax Credit are shown in Table 2.

TABLE 2

Proposed Investment Tax Credit Rates, 1987-1989

	1987	1988	1989
	(percent of eligible investment)		
Current 7 percent rate	5	3	0
Current 10 percent rate	7	3	0
50 percent rate for manufacturing in Special Investment Tax Credit areas	40	40	40
Research and Development	unchanged from current rates of 20, 30 and 35		
Atlantic Region	unchanged from current rate of 20		
Cape Breton	unchanged from current rate of 60		
High-cost exploration	unchanged from current rate of 25		

Source: Minister of Finance, Budget Papers, February 26, 1986.

1.3.2 Small Business Deduction - is available to a CCPC, and reduces the federal tax rate on the first $200,000 of business income from an active business by 21 percent.

1.3.3 Capital Cost Allowance (Depreciation) - all depreciable assets are grouped into 35 broad classes Assets are depreciated, in each class, on a straight line or declining balance basis. The rates of capital cost allowance range from 4 to 100 percent, but for such common items as automobiles, trucks, computers, film and certain mining and logging equipment, the rate is 30 percent. Buildings are depreciated at 5 percent per year. Manufacturing and processing machinery and equipment can be written off over 3 taxation years.

1.3.4 Scientific Research - expenditures of a current and capital nature may be written off in the year in which they are incurred, or may be capitalized and deducted, either in whole or in part, in any future year. A minimum 20 percent tax credit is available for all R&D, with a 35 percent credit applicable to small businesses (see Table 2). The February 26, 1986 budget has proposed that the tax credit earned by small businesses for current expenditures on R&D continue to be fully refundable beyond 1986.

1.3.5 Foreign Tax Credit - a corporation resident in Canada is normally entitled to a credit against Canadian income tax for taxes paid to foreign governments. The credit is limited to the amount of Canadian tax on the foreign business income, before the credit. The Income Tax Act provides for any unused business foreign tax credit to be carried back 3 years and carried forward 7 years.

1.3.6 Manufacturing & Processing - manufacturing and processing corporations receive a 6 percent deduction (5 percent for corporations claiming a small business deduction) on basic federal taxes. Profits from other sources remain subject to the normal tax rate.

1.3.7 Special Tax Credits & Deductions - are availabe for mining, petroleum and logging operations. A limited tax credit is also available for political contributions made during the year.

1.3.8 Mining Industry - through various provisions, such as earned depletion, immediate exploration and development expenditure write-off, and accelerated depreciation provisions, essentially no federal tax is incurred by the mining industry before costs are more than fully recovered.

The tax system includes a special Capital Cost Allowance incentive class (Class 28) for new mines, which allows capital costs incurred from a new mine to be written off at the greater of income from the mine, or at 30 percent per year against all income of the corporation.

1.3.9 Cape Breton

The May 1985 and February 1986 budgets provide tax incentives to further encourage investment on Cape Breton Island. These tax initiatives form a key part of the general adjustment program for this area. Projects approved by the Minister of Regional Industrial Expansion are offered a 60 percent tax credit for the acquisition of new eligible assets to be used on Cape Breton Island. This special tax credit can be carried back 3 years and carried forward for a 10-year period to offset federal income tax otherwise payable.

As a result of this initiative, for many projects in Cape Breton, no federal income tax will be payable for 10 to 15 years.

Under the incentive, in addition to manufacturing and processing, sectors such as farming, logging, and other resource-related activities are covered by the new 60 percent credit. In recognition of the special situation in Cape Breton and to enhance the job-creation potential of this measure, additional activities are eligible for approval. These include certain tourism facilities, the technical services-to-business sector, and the provision of central facilities for receiving, storage and distribution.

The February 1986 budget proposes to increase the refundable portion of unused Cape Breton investment tax credits earned in a year from 20 percent to 40 percent for large businesses. Small businesses already receive a 40 percent refund. This increase will benefit taxpayers who cannot make immediate use of the credit to reduce tax. All businesses, regardless of size, will now be assured of receiving 40 percent of any unused tax credit as a refund in the year the credit is earned. The remaining portion of the credit can be carried forward for up to 10 years. This change will be effective for eligible property acquired after May 23, 1985 and before 1989.

Property eligible for the regional investment tax credit such as buildings, machinery and equipment in these sectors, are also eligible for this credit as prescribed by Regulations to the Income Tax Act. Expenditures related to certain movable equipment, such as automobiles, trucks, vessels and other transportation equipment, do not qualify.

The total capital expenditures projected in respect of depreciable property must be at least $25,000, as of February 26, 1986, down from $50,000, for the project to qualify for the Cape Breton credit. The project requires the approval of the Minister of Regional Industrial Expansion, who will certify that the eligible expenditures are related to the approved project. To qualify, approval of the project will be required before July 1988, with expenditures made after May 23, 1985 and before 1993. The government is prepared to deal immediately with approval of individual projects on the basis of this proposal to ensure that they can proceed in an expeditious manner.

The Cape Breton Advisory Committee was created in 1985, composed of private sector representatives, to provide counsel on economic development measures for Cape Breton Island. This committee is reviewing the effectiveness of the measures and their scope, and advises on the possible inclusion of other activities beyond those listed above.

The combined effect of the IRDP*, the topping-up program and budget tax initiatives could reduce the actual dollar outlay of an eligible company by up to 84 percent of the planned capital investment.

1.3.10 Exploration Tax Credit (ETC)

Qualifying Canadian exploration expenses (CEE) incurred anywhere in Canada on or after December 1, 1985 and before January 1, 1991, earn the ETC. The credit earned may be used to reduce federal income taxes otherwise payable. The ETC is earned at a 25 percent rate on qualifying CEE incurred in respect of a well costing in excess of $5 million.

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* See "Incentive Programs", Section 6.3.

The tax credit will not be earned on those well expenses that attract payments under the Petroleum Incentives Program (PIP) or under the Alberta Petroleum Incentive Program (APIP).

An additional feature of the ETC will allow taxpayers to apply for a refund of up to 40 percent of that portion of the credit not otherwise utilized in the year the credit is earned. Any unclaimed balance that is not refunded will be available to be used in other years in accordance with the existing investment tax credit rules, which allow a 7 year carryforward and a 3 year carryback.

The ETC claimed or refunded will reduce the cumulative Canadian exploration expense of a taxpayer in a manner similar to the reduction by the Investment Tax Credit of the capital cost of an asset for capital cost allowance purposes.

For purposes of earning the credit, qualifying Canadian exploration expenses incurred in respect of a well will be those expenses as described in subparagraphs 66.1(a)(ii), (ii.1) and (ii.2) of the Income Tax Act other than the following expenses:

- Canadian exploration expenses that are not well-specific;
- Canadian exploration and development overhead expenses;
- interest, financing and borrowing charges; and
- expenses that attract an incentive under PIP, APIP or any other similar program.

1.4 Other Relevant Factors

1.4.1 Other Responsibilities - corporations should be aware that there are a number of other taxes which may be levied by the different levels of government: property taxes, business taxes, licenses, and land transfer taxes. Investors should consult with the appropriate authorities for full information on the applicability, rates, and frequency of these taxes.

All employers are required to make contributions on behalf of their employees to the Canada or Quebec Pension Plan and to the Unemployment Insurance Plan. These contributions must be made at the prescribed rates, by both employers and employees. Contributions to provincial workmen's compensation boards are also obligatory in most businesses.

1.4.2 Transfer Pricing Reorganization - transactions between taxpayers, who do not deal at arm's length, must take place at fair market value. Several exceptions are provided, however, to facilitate various corporate reorganizations, including transfers of assets to corporations under qualifying circumstances, and certain capital reorganizations, mergers and liquidations. These rules ensure that assets are considered to be transferred at their cost for tax purposes, thereby postponing the tax that would be payable if the assets were considered to be transferred at their fair market value.

1.4.3 Provincial Tax - the provinces and the territories impose a corporate income tax, in addition to the federal tax. Canadian federal tax rates are reduced by 10 percent to make provision for provincial taxation. Provincial tax is calculated by allocating taxable income to the provinces in which a corporation has a permanent establishment. The allocation is usually made on the basis of the average ratio of revenues and salaries attributable to each province to total revenues and salaries attributable to all provinces. The appropriate provincial tax rate is then applied to the resulting amount of taxable income in order to determine the provincial tax payable. Provincial tax rates vary from 5.5 to 16 percent for the 1985 taxation year, and certain provinces reduce these rates for CCPC's eligible for the small business deduction.

2. TAXATION OF NON-RESIDENT CORPORATIONS AND INDIVIDUALS

2.1 International Agreements

Canada has entered into tax treaties with other countries for the purposes of preventing double taxation on the same income and tax evasion. The provinces are not party to the formal tax treaties, but normally adhere to the provisions of the treaties. A list of those countries with which Canada has entered into a tax treaty arrangement is provided in Appendix I.

2.2 Withholding Tax

In the case of a non-resident, a withholding tax is applied to payments of dividends and interest, salaries, bonuses, commissions, or other amounts for services rendered, as well as payments of pension benefits and retiring allowances. The statutory rate of Canadian withholding tax to non-residents is 25 percent. This is generally reduced to 15 percent by Canadian tax treaties. Certain types of income, such as interest on government bonds and certain corporate bonds, are exempt from the withholding tax.

Management fees paid by a Canadian company to a non-resident head office are subject to withholding tax at normal rates. However, where the charge is for a specific cost or service, or for indirect expenses that can reasonably be considered as having been incurred on behalf of the Canadian company, there is no withholding tax. The purpose of this tax is to prevent the repatriation of profits by means of management fees. The tax authorities will seek to disallow any excessive charges, as well as to impose the withholding tax.

2.3 Non-Resident Corporation

A non-resident corporation is subject to tax only on the income the business earns in Canada, and on the gains from the sale or disposition of a Canadian taxable property. The tax is computed on the same basis and at the same rates as a resident corporation, except that it would not be eligible for certain deductions, i.e., the small business deduction.

2.4 Non-Resident Branch Operations

The taxable income of a branch is considered as though the branch were a foreign-controlled subsidiary carrying on business in Canada. There is an additional tax applied to non-resident branch operations of 25 percent, but this rate may be limited by treaty.

2.5 Non-Resident Member of a Partnership

A non-resident partner is subject to tax on his share of the partnership's income which was derived from business activity carried out in Canada. A non-resident partner is also subject to the additional tax of 25 percent, as in the case of a non-resident branch. If the partnership's income includes amounts earned outside Canada, the non-resident partner could exclude his portion of such income from his Canadian taxable income.

2.6 Non-Resident Owned Investment Corporations

Holding companies which are wholly foreign owned and derive their income from the ownership of securities, are subject to a special tax rate of 25 percent. Taxable dividends paid are subject to a 25 percent withholding tax (usually reduced by treaty), but the payment of dividends allows for a refund of the tax paid by such a corporation.

2.7 Non-Resident Individual

Income derived in Canada by the non-resident is subject to the tax in the same manner, and at the same rate, as a resident. Tax treaties generally exclude the taxation of non-residents, but exemptions are not applicable where the individual becomes a resident of Canada (whether or not he remains a resident in another country), or where the non-resident has remained in Canada more than 183 days during the taxation year.

In addition to income earned in Canada, non-residents are subject to a 25 percent withholding tax, which may be reduced by treaty, on amounts paid or credited to them by residents of Canada.

3. COMPARATIVE CORPORATE TAX TREATMENT CANADA/U.S.

In general, the corporate tax structures of Canada and the U.S. are similar in many respects. However, there are differences, and it is some of these differences, at least the ones which have a major impact on the relative tax of both countries, which are highlighted below.

3.1 Rates of Taxation

In 1985, the U.S. federal tax rates are:

Taxable Income ($)	Tax Rate (Percent)
0 - 25,000	15
25,000 - 50,000	18
50,000 - 75,000	30
75,000 - 100,000	40
100,000 +	46

An additional tax of 5 percent (up to a maximum of $20,250 tax payable) is levied on taxable income over $1 million.

The U.S. does not provide an abatement for state income taxes paid, but it allows a deduction of state and municipal taxes paid from taxable income. Rates at the state level vary from 0 to 10.5 percent. Also, the U.S. does not provide a lower rate for manufacturing and processing corporations.

In Canada, the basic federal corporate tax rate is 46 percent, with a 10 percent tax abatement for provincial taxes. Rates at the provincial level vary from 5.5 to 16 percent. In addition, manufacturing and processing corporations receive a 6 percent deduction (5 percent for a corporation claiming a small business deduction) on basic federal taxes. Simply stated, a large manufacturing corporation is subject to a 30 percent (after provincial abatement) basic federal tax rate. The February 1986 budget proposes a phased-in reduction of the post-abatement basic federal tax rate. (See Table 1)

3.2 Investment Tax Credit

Tax credit for corporations in both countries is the Investment Tax Credit (ITC). In the U.S., the basic structure of the ITC allows a 10 percent credit on investment in machinery and equipment. Few structures qualify. The U.S. limits the ITC claimable in a year to the first $25,000 of a firm's tax liability, and 85 percent of its remaining tax liability. The U.S. has recently made a change in the interaction of its investment tax credit and the cost of an asset for depreciation purposes. For assets acquired after 1982, the cost of the property to be depreciated will be reduced by 50 percent of the ITC. As an alternative to this reduction, the corporation may opt to decrease the investment tax credit by 2 percentage points. In the U.S., corporations are allowed a 3 year carry back and a 15 year carry forward on unused amounts of ITC.

In contrast to the U.S., capital investment in Canada on plant, as well as on machinery and equipment for qualifying activities, is eligible for an ITC. Qualifying activities include manufacturing or processing, farming, fishing, resource activities and transportation. The current basic rate of credit is 7 percent, with rates of 10 or 60 percent in special regions. The February 1986 budget proposed phased-in reductions of the ITC to 1989 (see Table 2). In addition, there is a special 50 percent investment tax credit for manufacturing assets in designated regions, to be reduced in 1987 to 40 percent. On average, weighted by investment, the ITC is almost 10 percent across Canada. The ITC reduces the capital cost of qualified property for Capital Cost Allowance purposes by the amount of the ITC for the year.

Since April 19, 1983, corporations have been able to use their ITCs to reduce federal tax without limit. The unused credits may be carried back 3 years or forward 7 years. In addition, as a temporary stimulation measure, 20 percent (40 percent for small businesses) of unused credits earned in a year may be refunded. The February 1986 budget proposes that in Cape Breton, all businesses, regardless of size, be eligible for a 40 percent refund.

3.3 Treatment of Inventories

The treatment of inventories in each country is related to the accounting method allowed. The U.S. provides an option, which allows corporations to use the LIFO method of valuing inventories for tax purposes, if they use LIFO for financial purposes. LIFO evaluates inventories at the cost of the last item; it compensates for inflation in a rough manner, as inventories are valued at replacement cost. This results, during an inflationary period, in a lower net income for tax purposes than if an average cost, or the first-in-first-out (FIFO) method of evaluating inventories had been used. LIFO is not acceptable for Canadian tax purposes.

3.4 Treatment of Depreciation

The U.S. has recently implemented the Accelerated Cost Recovery System (ACRS) method for calculating tax depreciation. The ACRS must be used for depreciable property placed in service after 1980. The ACRS provides a set of rates with which to calculate depreciation, and these depreciation rates can be more generous than under the previous system. All assets are placed into one of five classes: a 3 year, 5 year, 10 year, 15 year or 18 year cost recovery period. Most machinery and equipment, with a previous depreciation life of 5 years or more, fall into the 5 year ACRS class; most buildings and components fall into the 18 year ACRS class. The ACRS incorporates the half-year rule where only one-half of the cost of the asset may be depreciated in the first year.

Canada has not made major changes in its rates of depreciation since 1978. However, the half-year rule has been introduced for calculating tax depreciation in the year an asset is acquired. This is similar to the rule in the U.S. The half-year rule, however, does not apply for the tax depreciation calculation for provincial purposes by Ontario.

In Canada, all depreciable assets are grouped into about 35 broad classes. The assets in each class are depreciated at the same rate. The rates vary from 4 to 100 percent. Most buildings are depreciated at 5 percent. For manufacturers, machinery and equipment has a 2-year write-off which, because of the half-year rule, occurs over 3 taxation years.

3.5 Treatment of Losses

The two tax systems also differ in their treatment of losses - both business and capital losses. In recent years, both have increased the carry-over periods for applying losses incurred in one year against taxable income of other years. In the U.S., business losses can be carried back 3 years and forward 15 years (rather than the previous 3 back and 7 forward). In Canada, business losses are allowed a 3-year carry back and a 7-year carry forward.

3.6 Intercorporate Dividends

The two countries also differ in their treatment of intercorporate dividends. Canadian corporations are allowed a 100 percent deduction from income for any dividends received from Canadian taxable corporations, as well as from foreign affiliates in which the corporations' equity percentage is not less than 10 percent. The U.S. allows an 85 percent deduction in the case of dividends received from non-affiliated corporations; dividends from affiliated corporations are deductible in full. Dividends received from a foreign corporation are only allowed a deduction if the foreign corporation does significant business in the United States.

3.7 Capital Gains at Corporation Level

The taxation of capital gains at the corporation level differs significantly between the two countries. In the U.S., long-term capital gains, which are not reduced by short-term or long-term capital losses, qualify for preferential treatment. There are certain devices which reduce the maximum income tax rate on capital gains to 28 percent. Long-term capital gains are preferable to ordinary income, because the capital gains are subject to a rate of tax at least as favourable, if not lower, than that levied on ordinary income.

In Canada, only 50 percent of any capital gain is taxed; consequently, effective tax rates on capital gains for small business are about 10 to 12.5 percent, and about 20 to 25 percent for larger corporations. There are other differences as to how each of the countries treat capital gains, but these differences are too technical to be described here.

3.8 Integration of Corporate and Personal Taxes

The tax treatment of corporate income distributed to shareholders differs significantly between the two countries. The U.S. does not provide any measures for the individual shareholder to compensate for corporate taxes paid. However, for small businessmen wishing to avoid double taxation, the U.S. provides an option in cases where corporations with no more than 35 non-corporate shareholders elect to be taxed in a manner similar to partnerships, and consequently pay no corporate taxes. This option, however, eliminates the deferral benefit on income retained in a corporation.

In Canada, the tax system for the individual recognizes, through the dividend gross-up and credit mechanism, corporate taxes paid on dividend income received from Canadian corporations. The dividend tax credit is intended to relieve double taxation, and achieves integration for shareholders of small business.

3.9 Research and Development Tax Incentives

In the U.S., only current research and development expenditures qualify for a 100 percent write-off, as well as a 25 percent credit applicable to an increase in research and development expenditures which are above the average research and development expenditures of the previous 3 years. Current expenditures must be expensed in the taxation year, or capitalized and deducted in a pro-rata fashion over a minimum of 5 years. Capital expenditures in the U.S. are treated in the following way: equipment has to be depreciated over a 3 year period, and is eligible for a 6 percent Investment Tax Credit instead of the regular 10 percent; buildings must be depreciated over 18 years, and are not eligible for the Investment Tax Credit.

In Canada, current and capital research and development expenditures qualify for a 100 percent write-off and a general tax credit of 20 percent (35 percent for current expenditures of small businesses). Current and capital research and development expenditures can be expensed in the taxation year or in any future year.

In terms of activities covered by the definition of research and development, both countries treat virtually all expenditures before the pre-production stage as development expenditures, unless specifically excluded. In Canada, current costs must be directly attributable to R&D and capital costs must be all, or substantially all, attributable to research and development in order to qualify for the write-off and tax credit. In the U.S., current costs must be directly related to research and development to qualify for the 100 percent write-off.

Only certain direct costs (direct wages, some supplies and user charges) are applicable for the research and development tax credit; overhead is specifically excluded.

4. INDIVIDUAL TAXATION

For taxation purposes, an individual who, during the taxation year resided 183 days or more in Canada, is considered a Canadian resident. The income of a Canadian resident includes worldwide income from employment, business, property, capital gains (net of losses) and other sources. Generally, the taxation year for an individual is the calendar year, but if the individual is self-employed or a member of a partnership, the taxation year can be the fiscal year of the business.

4.1 Taxable Income

Income can be derived from employment, business, property and capital gains.

4.1.1 Employment-Income income from employment includes salary, wages, commissions, gratuities, director's fees, and other remuneration received by an individual. Also included in employment income are employment benefits such as use of a company car, value derived from an interest-free loan, tuition fees, holiday trips paid by the employer, rent-free accommodations, etc. Fringe benefits not taxable are: contributions made by the employer to a registered retirement plan, group sickness or accident insurance plan, deferred profit-sharing plan, reimbursement of moving expenses, and group-term life insurance plans not exceeding $25,000 per employee.

4.1.2 Business Income - income from an unincorporated business or from a partnership. An individual's net business income is determined in the same manner as the net business income of a corporation. Generally, the deductions are similar to those allowed to a corporation. As for a partnership, the individual calculates his share of the net income of the partnership.

4.1.3 Property Income - an individual's net income from property in the form of interest, dividends, rents and royalties is generally calculated in the same way as property income of a corporation. There are, however, two major differences. First, individuals receiving dividends from Canadian corporations must "gross-up" to include 150 percent of the amount of the dividend received. Then, the individual is allowed a deduction from tax payable of approximately 50 percent of the dividend. Second, interest income may be reported in one of three ways: cash basis, receivable basis or accrual basis.

4.1.4 **Capital Gains** - capital gains are calculated in the same manner for an individual and a corporation. One-half of the capital gains, net of capital losses, realized in a taxation year must be reported in the individual's yearly tax return. However, the May 23, 1985 budged budget proposed that individuals be allowed a cumulative tax exemption for capital gains up to a lifetime limit of $500,000 for gains realized after 1984. The exemption will be phased in over the next five years.

4.2 Payment of Income Tax

The employer of the individual is required to deduct both federal and provincial income taxes on salaries and wages at source. If the individual is self-employed, or if he earns substantial amounts of income from sources other than salary and wages, the individual is required to make quarterly tax installments during the year.

A personal tax return must be filed by the individual on or before April 30 for the previous taxation year (January 1 to December 31). If the income tax paid through source deductions or quarterly installments is less than the tax payable as calculated on the personal tax return, the balance of the tax payment must be paid by April 30. On the other hand, if the income tax paid through source deductions or quarterly installments is more than the tax payment, the individual is entitled to a tax refund.

4.3 Deduction to Income Tax

There are a large number of deductions available to the individual to reduce the amount of tax payable. Some of the deductions are:

Deduction	Amount (1985)
basic personal exemption	$4,140
married exemption	$3,630
children under 18	$ 710 (per child)
over 18	$1,420 (per child)
age exemption (65 and over)	$2,590
blind or disabled	$2,590
contributions to a registered retirement savings plan	$3,500 or $5,500 (maximum)
tuition fees	
child care expenses	$2,000 per child or $8,000 per family
employment expense deduction	$500 (maximum)
carrying charges on investments	
alimony and maintenance payments	
moving expenses (only within Canada)	
medical expenses in excess of 3 percent of net income	
union or professional dues	
travel and other expenses of a commission salesperson	
charitable donations	not to exceed 20 percent of net income

Canada/Quebec Pension Plan	
losses (non-capital and net capital losses)	
interest, dividend and capital gains	a maximum of $1,000 in total

Several provinces offer additional deductions which can be applied to reduce the amount of tax payable by individuals residing in that province.

5. FEDERAL SALES AND EXCISE TAXES

Sales tax is applied to most goods manufactured or purchased in Canada, or imported into Canada. Excise tax is a special tax which is in addition to the sales tax and is imposed on specific goods (listed in part IV and schedules I and II of the Excise Tax Act), which are imported into Canada or manufactured or produced and sold in Canada. The rate of sales tax is currently 12 percent, except for construction materials and equipment for buildings (8 percent), and for alcohol and tobacco products (15 percent). The excise tax varies with the class of goods. On June 1, 1985 the sales tax on gasoline and diesel was at specific rates per litre. Special taxes are the air transportation tax, cable television tax, insurance tax and additional excise duties on alcohol, tobacco and beer at specified rates. Federal sales and excise taxes are computed on the sale price of the goods manufactured or produced in Canada, and on the duty-paid value of goods imported into Canada. Taxes must be paid at the time when the goods are delivered to the purchaser, or when the title of the goods passes, whichever is earlier.

6. RETAIL SALES TAX

Retail sales tax is levied by 9 of the 10 provinces at the rates listed below. This tax is imposed at the retail trade level on tangible goods, property, and services acquired for consumption within the particular province. Certain essential items, such as food and children's clothing, are generally exempt from sales tax. Retailers must maintain records of the taxable and non-taxable sales, and are required to act as the agent for the provincial government in collecting the sales tax.

Retail Sales Tax

PROVINCE	RATE %
Newfoundland	12
Prince Edward Island	10
Nova Scotia	10
New Brunswick	10
Quebec	9
Ontario	7
Manitoba	6
Saskatchewan	5
British Columbia	7

APPENDIX I

INTERNATIONAL TAX TREATIES

In addition to the two major reciprocal income tax treaties between Canada - United States and Canada - United Kingdom, reciprocal income tax agreements or conventions are also currently in force between Canada and the following countries (in some cases the treaty currently in force, signed on the date noted, replaced another treaty that had been in force from earlier times):

Australia	May 21, 1980
Austria	November 9, 1976
Barbados	January 22, 1980
Belgium	May 29, 1975
Denmark	September 30, 1955
The Dominican Republic	August 6, 1976
Egypt (Arab Republic of)	May 30, 1983
Finland	March 28, 1959
France	May 2, 1975
Indonesia	January 16, 1979
Ireland	November 23, 1966
Israel	July 21, 1975
Italy	November 17, 1977
Jamaica	March 30, 1978
Japan	September 5, 1964
Korea	February 10, 1978
Malaysia	October 15, 1976
Morocco	December 22, 1975
The Netherlands	April 2, 1957
New Zealand	May 13, 1980
Norway	November 23, 1966
Pakistan	February 24, 1976
The Philippines	March 11, 1976
Romania	November 20, 1978
Singapore	March 6, 1976
South Africa	September 28, 1956
Spain	November 23, 1976
Sweden	October 14, 1983
Switzerland	August 20, 1976
Trinidad and Tobago	September 28, 1966
Tunisia	February 11, 1982
West Germany	July 17, 1981

Tax treaties signed but not yet ratified:

Bangladesh	February 15, 1982
Brazil (Federative Republic of)	June 4, 1984
Cameroon	May 26, 1982
Cyprus (Republic of)	May 2, 1984
Ivory Coast (Republic of the)	June 16, 1983
Kenya (Republic of)	April 27, 1983
Liberia	November 30, 1976
Sri Lanka	June 23, 1982
Thailand (Kingdom of)	April 11, 1984
Zambia (Republic of)	February 16, 1984

INCENTIVE PROGRAMS

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INCENTIVE PROGRAMS

1. Objectives of Incentive Policies

As in all countries around the world, the various levels of government in Canada offer many incentive programs to investors who are starting or expanding a business. The basic objective of these programs is one of improving the economic health of the residents concerned. For the Canadian federal government, specific objectives include the following:

> to promote better distribution of economic activity or employment across the country;
>
> to help increase productivity and efficiency;
>
> to increase national defence capability;
>
> to increase the mobility of the work force;
>
> to promote international trade;
>
> to encourage industrial innovation, development and introduction of new products and processes.

Virtually all federal and provincial assistance programs are designed as true incentives or levers, and are available only if a viable, promising project/venture would not proceed otherwise.

The federal government's incentives can be classified into two general categories: General Incentive Programs and Incentives under the Income Tax Act. The latter are statutory in nature and are non-discretionary. Any business, which fulfils the terms of the applicable income tax regulations, is eligible for these incentives and accordingly pays a reduced income tax. The general incentives, on the other hand, are discretionary in that a company is not automatically entitled to them; these incentives are negotiated with the government department which administers the program.

Section 3.1 highlights, in summary form, a number of major incentives available from the federal government. As governments respond to changing conditions, modifications and changes are made to the available programs. Accordingly, we encourage you to discuss the project, for which assistance is needed, with officials in the particular department or agency administering the program. Contact addresses are provided for each program.

Canada's provincial and territorial governments also offer their own incentive programs, which are often complementary to those of the federal government. Many of these are listed, by province, in section 4.

In addition to the federal and provincial programs and services, there are numerous municipal incentives available to businesses. It would be useful to contact the municipality directly to determine whether assistance is available for a project.

2. Types of Incentive Programs

2.1 General Incentives

Incentive and assistance programs are structured such that they adress the needs of businesses at particular stages of activity. The major areas to which programs are oriented are summarized below.

2.1.1 Financing

Recognizing the importance to businesses of having adequate financing available, and at reasonable cost, each of the three levels of government have provided a wide range of programs and tax measures to afford qualified applicants access to the necessary funds. The main types of financial assistance offered by the federal and provincial governments are loan guarantees and insurance, grants and tax advantages.

2.1.2 Exports

The federal and provincial governments have many programs to assist businesses in developing domestic and export markets for their programs and services. In particular, the federal department of External Affairs, Regional Industrial Expansion and Agriculture have a number of programs which assist a business in marketing activities. The provinces also have marketing and business development ministeries or agencies.

2.1.3 Research and Development

Research and development is vital to Canada's economic development and to maintain a business edge in the marketplace. The R&D incentive programs in Canada are either income tax related, that is, they reduce or defer the amount of income taxes otherwise payable, or take the form of specific government grants covering a portion of research costs incurred. They are all designed, however, to increase the productivity of Canadian industry and to assist in the creation of new technology by encouraging businesses to undertake or increase the level of research and development activities. The incentives are generally not restricted to specific types of projects; rather the business is left to determine the nature of the project it wishes to pursue. Furthermore, these incentives are available not only to large corporations with full-time staff or scientists and expensive and sophisticated research facilities, but also to small- and medium-sized businesses. Further, qualifying businesses with sound innovative projects and without any in-house research facilities can "contract out" the project to universities, research institutes, or other outside organizations; the costs so incurred are generally eligible for grants in the same manner as if the business had carried out the project itself.

Federal government departments offering R&D assistance are Energy, Mines and Resources; Fisheries and Oceans; Revenue Canada; and Regional Industrial Expansion. Again, the provincial governments also provide incentive to conduct R&D in Canada.

2.1.4 Incentives for Technological Development

The Canadian Government provides support for technological development through a variety of mechanisms, ranging from tax incentives to grants loans, contracts for goods and services, infrastructure support, and skills training related to advanced technologicy industries. Canada offers the most generous tax treatment of R&D of all OECD countries, and second only to Singapore in the world.

2.1.5 Business Expansion

To modernize a business, expand or restructure the scope of operations, there are a number of federal and provincial programs that can be of assistance. Typically assistance is in the form of loan guarantees and/or other financial support for high risk modernizing and restructuring programs.

2.1.6 Personnel

A successful business requires workers with the necessary skills. A wide range of federal and provincial services and programs are provided to assist employers in obtaining and developing qualified employees. Assistance for occupational training, support for the retraining of workers displaced by technological change, assistance and information in recruiting, employee relations, and management development are provided by labour Canada, the Canadian Employment and Immigration Commission, and other government agencies. Provincial programs augment those offered by the federal level of government.

2.1.7 Incentives For Investment in Cape Breton

(a) Financial Assistance

Under the Industrial and Regional Development Program (IRDP) an eligible manufacturing or processing company in Cape Breton may apply for assistance to finance buildings, machinery and equipment for up to a basic maximum of 30 percent of cost for new projects, or 25 percent for business expansions. Individuals, associations, partnerships, cooperatives, corporations and non-profit organizations are eligible, dependent upon the nature of the project.

Assistance for eligible projects covers six elements of a product's (or company's) cycle:

- Innovation: consultant studies; development of new products or processes; technological capability; demonstration and design.
- Establishment: consultant studies; plant establishment.
- Modernization/Expansion: consultant studies; modernization; expansion; adaptation of microelectronic/electronic technology.
- Marketing: consultant studies; collection/dissemination of tourism information; special events; market research.

In addition, "topping-up" assistance, introduced on July 17, 1985, can raise this proportion up to 60 percent in both instances.

(b) Tax Initiatives

The May 1985 budget provided a new tax initiative to further encourage investment on Cape Breton. This tax initiative forms a key part of the general adjustment program for this area. Projects approved by the Minister of Regional Industrial Expansion will be offered a 60-percent tax credit for the acquisition of new eligible assets to be used on Cape Breton. This special tax credit can be carried back three years and carried forward for a 10-year period to offset federal income tax otherwise payable.

As a result of this new initiative, for many projects in Cape Breton, no federal income tax will be payable for 10 to 15 years.

Under the new incentive, in addition to manufacturing and processing, sectors such as farming, logging, and other resource-related activities will be covered by the 60-percent credit. In recognition of the special situation in Cape Breton and to enhance the job-creation potential of this measure, additional activities will be eligible for approval. These will include certain tourism facilities, the technical services-to-business sector, and the provision of central facilities for receiving, storage and distribution.

The February 1986 budget proposes to increase the refundable portion of unused Cape Breton investment tax credits earned in a year from 20 percent to 40 percent for large businesses. Small businesses already receive a 40 percent refund. This increase will benefit taxpayers who cannot make immediate use of the credit to reduce tax. All businesses, regardless of size, will now be assured of receiving 40 percent of any unused tax credit as a refund in the year the credit is earned. The remaining portion of the credit can be carried forward for up to 10 years. This change will be effective for eligible property acquired after May 23, 1985 and before 1989.

Property eligible for the regional investment tax credit such as buildings, machinery and equipment in these sectors are also eligible for this credit as prescribed by Regulations to the Income Tax Act. Expenditures related to certain movable equipment, such as automobiles, trucks, vessels and other transportation equipment do not qualify.

The total capital expenditures projected in respect of depreciable property must be at least $25,000, as of February 26, 1986, down from $50,000, for the project to qualify for the Cape Breton credit. The project requires the approval of the Minister of Regional Industrial Expansion, who will certify that the eligible expenditures are related to the approved project. To qualify, approval of the project will be required before July 1988, with expenditures made after May 23, 1985 and before 1993. The government is prepared to deal immediately with approval of individual projects on the basis of this proposal to ensure that they can proceed in an expeditious manner.

An advisory committee was created, composed of private sector representatives, to provide counsel on economic development measures for Cape Breton. This advisory committee has been asked to review the effectiveness of the measure and its scope, and to advise on the possible inclusion of other activities beyond those listed above.

The combined effect of the IRDP, the topping-up program, and the budget tax initiative could reduce the actual dollar outlay of an eligible company by up to 84 percent of the planned capital investment.

(c) Other Assistance

Other forms of assistance are also available on Cape Breton. The Cape Breton Development Corporation (DEVCO) assists the financing and development of industry on the Island: to provide employment outside the coal industry, to broaden the economic base of the area; and, to contribute to the rehabilitation and modernization of mines in the Sydney coal field. In 1984, DEVCO provided some $11.2 million in assistance, up 40.7 percent from 1983.

(d) International Trade Zone

The first international trade zone in Canada was established at the Sydport Industrial Park in Cape Breton. This allows companies to import materials free of duty, manufacture or assemble products in Cape Breton, and export this production to other countries, such as the U.S. This allows companies to manufacture in Canada at lower cost for export and provides an attractive ingress to the lucrative U.S. market.

These government initiatives make Cape Breton one of the most attractive places to invest in all of North America, potentially reducing actual capital outlays to as little as 16 cents for each dollar of intended investment.

2.1.8 The Atlantic Enterprise Program

To enhance the rate of private sector job creation in the Atlantic region, including the Gaspé Peninsula, the government is launching this major new initiative. Under the Atlantic Enterprise Program, guarantees of loans totalling up to $1 billion and interest rate buy-downs of up to six percentage points will be made available to stimulate and support productive new private investment in the region.

To avoid duplication with existing federal and provincial programs, the program will be limited to term loans of a minimum of $250,000. The loan guarantee for eligible projects will be set at a maximum of 85 percent of the principal amount of the loan. The program will apply not only to manufacturing and processing, but also complement existing programs in related service sectors, tourism, and primary industries, in recognition of the important role played by these sectors in the Atlantic region's economy.

2.2 Incentives under the Income Tax Act

Incentives under the Income Tax Act include: Business Investment Tax Credit; Small Business Deductions, Capital Cost Allowance (Depreciation); Foreign Tax Credits; Manufacturing and Processing Corporation Deductions; Special Tax Credits and Deductions and Research and Development Deductions and Tax Credits.

See "Taxation and Tax Incentives" for details on these and other measures.

3. Federal Incentive Programs by Business Activity

3.1 Summary of Programs

Federal government incentive programs are summarized below according to the type of business activity, listing the program name and incentivaes available.

Sections 3.2 through 3.15 list individual programs according to the specific sectors they address.

All program details are current as of January 1986.

FEDERAL INCENTIVE PROGRAMS

Type of Business Activity	Program	Incentives Available
3.1.1 Capital Projects		
Studies to determine project feasibility, carry out eligible market research and other establishment studies; plant establishment. Also available for modernization or expansion.	IRDP-Industrial Regional Development Program.	Contributes between 30 and 37.5 percent of costs for studies and between 17 and 25 percent for plant establishment. Also provides between 30 and 37.5 percent funding for the installation of micro-electronics in production processes and products.
Establishment of manufacturers and processors in Atlantic and Gaspé regions. Program also complements existing programs in related service sectors, tourism and primary industries.	Atlantic Enterprise	Loan guarantees set at 85 percent of principal amount of loan; interest rate buy-downs up to 6 percentage points.
Establishment of qualified suppliers of defence or defence related products.	DIPP-Defence Industry Productivity Program.	Contributes toward the eligible costs of establishing qualified suppliers operating in Canada of defence or defence-related products.
Acquisition of advanced production equipment to modernize or upgrade manufacturing capability in Canada for defence and defence-related products.	DIPP-Defence Industry Productivity Program.	Contributes toward the eligible costs of acquisition.
Marketing feasibility studies on domestic and export market needs of Canadian defence-related products.	DIPP-Defence Industry Productivity Program.	Contributes toward eligible costs of market feasibility study.
Importing of advanced equipment not available in Canada.	MACH-Machinery Program.	Remission of certain import tariffs to reduce acquisition cost.
Purchase of machinery and equipment for earth-moving, manufacturing and processing, pollution control and energy efficiency uses.	Accelerated capital cost write-off.	Deduction from taxable income of cost of equipment at accelerated rate of up to 50 percent per year.
Purchase of assets to be used in manufacturing and processing, or of prescribed transportation equipment, with special emphasis on assets to be used in designated areas.	Investment Tax Credit.	Tax credit of between 7 and 60 percent of qualifying capital expenditures, depending on geographic area and purpose. Rates of 7 and 10 percent to be phased out by 1989, as proposed in February 1986 budget.
Purchase of assets to be used in expansion or modernization of existing facilities or the establishment of new facilities in designated areas.	Special Investment Tax Credit	Tax credit of up to 40 percent of qualifying capital expenditures.

FEDERAL INCENTIVE PROGRAMS

Type of Business Activity	Program	Incentives Available
Depreciation of capital goods.	Capital Cost Allowance.	Assets are depreciated according to class between four and 100 percent. Common items such as trucks, computers and film depreciate at 30 percent, while buildings depreciate at five percent per year.
3.1.2 Product and Productivity Improvement		
Innovation projects for studies (e.g. technology acquisition), developing new products or processes, developing technological capability, and product design.	IRDP-Industrial and Regional Development Program.	Contributes of up to 50 percent of eligible costs.
3.1.3 Personnel Training and Development		
Employee Development and retraining.	Canadian Job Strategy.	Reimburses up to 80 percent of employee's wages for approved programs, e.g. On-the-job training for new employees, re-training, etc.
Manpower planning and worker productivity improvement.	Industrial Adjustment Service.	Reimburses up to 50 percent of costs of moving redundant employees to other jobs.
3.1.4 Technical Research and Development		
Applied research in approved industrial research projects which are high risk, expensive or long range, but with large potential benefits, use of external R&D facilities by small companies with less than 200 employees to solve specific technical problems.	IRDP-Industrial and Regional Development Program.	Contributes toward the payment of salaries of scientists, engineers, technologists and technicians.
Research and development.	UPP-Unsolicited Proposals Program.	Provides bridge funding of R&D in areas of scientific research of specific interest to the government.
Research and development undertaken by any company operating in Canada in the field of biomass development.	Bio-energy Development Program.	Contributes toward R&D costs for eligible companies.
Small and medium sized manufacturing firms undertaking industrial research and development.	IRAP-Industrial Research Assistance Program.	Provides salary support for eligible companies.

FEDERAL INCENTIVE PROGRAMS

Type of Business Activity	Program	Incentives Available
Research and development in energy conversion being undertaken by companies incorporated in Canada, groupings of companies and individuals, trade and resource organizations, and consulting firms.	IERD-Industry Energy Research and Development Program.	Provides funds for eligible companies.
Development of new and improved techniques to increase efficiency of energy use.	IERD-Industrial Energy Research & Development Program.	Cost sharing of up to 50 percent of project's labour, materials and service costs.
Research and development being undertaken by company operating in Canada for projects relating to the defence industry.	DIPP-Defence Industry Productivity Program.	Contributions toward the eligible costs of establishing qualified Canadian suppliers of defence or defence-related products.
Development and demonstration of technology to result in greater resource conservation.	DRECT-Development of Resource Energy Technology.	Cost sharing of up to 50 percent of total estimated costs of an approved project. Special Conservation write-offs are offered for businesses using wind energy equipment.
Projects for industrial exploitation of available technology.	PILP-Program for Industry/Laboratory Projects.	Contributes towards project costs.
Cooperation between industry and universities on R&D of specific interest to industry.	NSERC-Natural Sciences and Engineering Research Council University-Industry R&D Program.	NSERC provides funding to the university, cooperating firm contributes facilities, research staff for additional funding.

3.1.4.1 Technical Research and Development - Tax Incentives

Research and Development activity.	Income Tax Incentive.	100 percent deductibility from income for current and capital expenditures on R&D.
Research and Development Activity.	Investment Tax Credit.	20 percent to 35 percent tax credit for expenditures on scientific research, depending on geographic area.

FEDERAL INCENTIVE PROGRAMS

Type of Business Activity	Program	Incentives Available
3.1.5 Development of Global Markets		
Export Sales.	EDC-Export Development Corporation.	EDC's services available to small as well as large exporters include: export credit insurance; long-term financing; surety insurance for performance guarantee; foreign investment guarantee for loss due to expropriation, war, etc.; discounting of foreign receivables.
Sales to non-Canadian government purchasing agencies.	CCC-Canadian Commercial Corporation.	Acts as prime contractor with client country; sub-contracts with Canadian firms; assists with prompt payment.
Export sales, investing in Canada, joint ventures, technology transfer, licencing.	Investment Canada, External Affairs, Embassies, Consulates.	A wide range of assistances and services. Market access information. Investment information.
Developing new export markets.	PEMD-Program for Export Market Development.	Contributes to a wide range of activities, including: specific project bidding; market identification; participation in trade fairs; incoming buyers; etc.
3.1.6 Federal Tax Incentives - Not listed elsewhere		
	Foreign Tax Credit.	Resident corporation in Canada is entitled to credit against income tax fully paid to foreign governments. The credit is limited to the amount of Canadian tax on the foreign business income before the credit.
Manufacturing and Processing activities.	Manufacturing and Processing Tax Credit.	A six percent deduction (five percent for small business deductions) on basic federal tax.
Mining, petroleum and logging operations.	Special Tax Credit and Deductions.	Tax credits made available for all three types of activities.
New Mining operations.	Mining Industry Tax Incentives.	Capital Cost Allowance for new mines allowing all capital costs incurred from a new mine to be written off at the greater of income from the mines or at 30 percent per year against all income of the corporation.
Exploration activity.	ETC - Exploration Tax Credit.	Qualifying Canadian exploration expenses incurred anywhere in Canada between December 1, 1985 and January 1, 1991.
Petroleum and Gas Production.	PGRT - Petroleum and Gas Revenue Tax Act.	Individuals resident in Canada are eligible for an annual deduction of $10,000 against their production revenue.

3.2 AGRICULTURE

Agriculture Canada, through its network of branches, divisions, and special administrations, provides farmers and others working in agriculture with a large number of services. Advance payments, subsidies, adjustment support programs, employment programs, credit, crop protection and development, farm management, research, etc., indicate the kind of activity undertaken by Agriculture Canada.

3.2.1 Advance Payments for Crops Act

To facilitate advance payments for crops

Eligibility - Canadian producer organizations.

CONTACT
Marketing Services Div.
Marketing & Econ. Br.
Agriculture Canada
Ottawa, Ont., K1A 0C5
TEL: (613) 995-5880

3.2.2 Agriculture Fairs and Exhibitions Assistance

The federal government assists agricultural fairs and exhibitions, to encourage livestock improvement and help the fairs and exhibitions maintain or improve their facilities.

Eligibility - Agricultural exhibition associations.

Animal Production Div.
Regional Develop. Br.
Agriculture Canada
Ottawa, Ont., K1A 0C5
TEL: (613) 994-0086

3.2.3 Agricultural Products Cooperative Marketing Agreements

By agreements under the Agricultural Products Cooperative Marketing Act between the Minister of Agriculture and cooperative groups, the federal government guarantees bank loans for initial payments and operating costs to primary producers of agricultural products.

Eligibility - Any group of producers organized in a cooperative fashion and having a pooling system in place.

Marketing Services Div.
Marketing & Economics Br.
Agriculture Canada
Ottawa, Ontario, K1A 0C5
TEL: (613) 995-5880

3.2.4 Agricultural Stabilization Board

The federal government assists producers to stabilize their incomes by providing deficiency payments when market prices fall below predetermined levels.

Eligibility - When a deficiency payment is announced, producers must file application forms documenting their production, and payments are then made directly to individuals.

Agricultural
Stabilization Board
Agriculture Canada
Ottawa, Ontario, K1A 0C5
TEL: (613) 593-6671

3.2.5 Animal Disease Eradication

Agriculture Canada has programs to control and/or eradicate certain diseases. Under these programs compensation is paid to herd owners for animals ordered destroyed or slaughtered to control disease.

Eligibility - Owners of animals slaughtered for disease purposes.

CONTACT
Animal Health Div.
Health of Animals Direct.
Food Production &
Inspection Branch
Agriculture Canada
Ottawa, Ontario, K1A 0C5
TEL: (613) 995-5433

3.2.6 Crop Insurance Act

The Farm Income Services Branch administers various programs concerned with providing income stability for farmers.

CONTACT
Provincial Crop Insurance
Agencies, or
Crop Insurance Division
Farm Income Services Branch
Agriculture Canada
Ottawa, Ontario, KIA 0C5
TEL: (613) 593-6671

3.2.7 Farm Credit Corporation (FCC), Farm Credit Act

To provide long-term mortgage credit to assist farmers and those wishing to become farmers to purchase, develop, and maintain sound farm businesses.

Eligibility - Individual farmers, corporations, or cooperative farm associations. Applicants must be of legal age with Canadian citizenship or permanent residency. Repayment ability and need for loan must be demonstrated.

CONTACT
Regional Farm Credit
Corporation Office of your
province or region and for
ask the Credit Advisor
serving your area.

3.2.8 Farm Syndicates Credit Act

To provide the financial means for farmers to act cooperatively in overcoming the high cost of individual ownership of machinery, buildings, and installed equipment that can be shared to mutual advantage.

Eligibility - A group of three or more farmers, the majority of whom have farming as their principal occupation, who have signed an agreement acceptable to the Farm Credit Corporation.

CONTACT
Consult a Credit Advisor
of the Farm Credit
Corporation in your area.

3.2.9 Fruit and Vegetable Storage Construction Financial Assistance Program

To extend the marketing period for domestic produce and to reduce reliance on imported fruits and vegetables by encouraging an increase in storage facilities.

Eligibility - Assistance is available to groups of three or more primary producers such as producer associations, cooperatives, syndicates, or marketing boards engaged in the production, storing, and marketing of fruit and vegetables for fresh market or for processing.

Marketing Services Division
Marketing and Economics Br.
Agriculture Canada
Ottawa, Ontario, KIA 0C5
TEL: (613) 995-5880

3.2.10 New Crop Development Fund (NCDF)

The NCDF assists projects that demonstrate the commercial potential of new crops, varieties, technologies, and/or production practices for a region. The Fund's purpose is to encourage the growth and efficiency of a diversified crops sector in Canadian agriculture.

Eligibility - Commercial organizations, industrial or producer associations, universities or other non-profit organizations, and provincial or territorial agencies that are established legal entities in Canada. Applicants must have adequate financial resources and the necessary physical, technical, and managerial capabilities.

Local Agriculture Canada
or New Crop Development
Fund Secretariat
Crop Production Division
Regional Development Branch
Agriculture Canada
Sir John Carling Building
Ottawa, Ontario, KIA 0C5

3.2.11 Western Grain Stabilization Act

The Western Grain Stabilization Act protects producers against extreme fluctuations in returns from year to year.

Eligibility - Grain producers in western Canada.

Western Grain Stabilization
Administration
Farm Income Services Branch
Agriculture Canada
Ottawa, Ontario, K1A 0C5
TEL: (613) 593-6671
- or -
Western Grain Stabilization
Administration
303 Main Street, Room 935
Winnipeg, Manitoba, R3C 3H5
TEL: (204) 949-3384

3.3 CANADIAN JOBS STRATEGY

The Canada Employment and Immigration Commission (CEIC) is concerned with the development and utilization of Canadian workers. The department provides employment and immigration services and administers the Unemployment Insurance Act.

3.3.1 Skill Investment

The general objective of the Skill Investment program is to assist employed workers to obtain new skills in response to changing technology and markets. Government assistance may be utilized to enhance labour market adjustment by absorbing some of the costs associated with adjustments when employees face major changes.

CONTACT: Any Canada Employment Centre

3.3.2 Job Entry

The first job after school, or after a long absence from the workforce, is often the hardest to get. Job Entry will make it easier for young people to move from school to work and for women to re-enter the job market. This program will help break the vicious circle of "No job because you have no experience and no experience because you can't get a job." Practical training will be provided for up to one year through government support of individuals, employers and community groups. It will give individuals a solid base of marketable skills, by providing a combination of training and direct experience.

CONTACT: Any Canada Employment Centre

3.3.3 Job Development

When some people are out of work for a long time, it is often because the skills they do have are not the skills that are needed on the labour market. To help Canadians who are experiencing long-term unemployment, Job Development projects assist businesses and communities to provide training and practical work experience which will build up an individual's marketable skills and improve opportunities for lasting employment.

CONTACT: Any Canada Employment Centre

3.3.4 Skill Shortages

The Skill Shortages program supports incremental training directed toward the prevention and alleviation of shortages in nationally and regionally designated occupational skills thus contributing to the development of a labour force required to meet needs of the Canadian economy.

CONTACT: Any Canada Employment Centre

3.3.5 Innovations

The Innovations program looks to the future of Employment Centre the Canadian labour market. It will act as a catalyst to tap the creative resources of the Canadian people and stimulate new initiatives for revitalizing Canada's labour market. Innovations provides financial assistance to individuals and groups who have pilot and demonstration projects which test new solutions to labor market problems. There are no pre-determined limits on projects, and proposals may address regional concerns, or issues which are national in scope.

CONTACT: Any Canada Employment Centre

3.3.6 Community Futures

The Community Futures program will be developed to better understand, anticipate and respond to the impact of social and technological change in communities. The program will address the real and pressing needs of communities by becoming involved in initiatives proposed from within the community itself. The particular strengths of a community can be the basis of its economic resilience, and the Community Futures program will build on these strengths by providing timely support and resources.

CONTACT: Any Canada Employment Centre.

3.3.7 Canada Employment and Immigration Commission Regional Offices

British Columbia and Yukon Territory
Royal Centre
1055 West Georgia St.
Vancouver, B.C.
V6E 2P8 TEL: (604) 666-2282

Alberta and N.W.T. Region
5th Floor, 9925 - 109 Street
Edmonton, Alberta
T5K 2J8 TEL: (403) 420-2424

Saskatchewan Region
Financial Building
2101 Searth St., Room 600
Regina, Saskatchewan
S4P 2H9 TEL: (306) 569-6255

Manitoba Region
Grain Exchange Building
167 Lombard Ave., Room 190
Winnipeg, Manitoba
R3B 0T6 TEL: (204) 985-2231

Quebec Region
1441 St.-Urbain, 9th Floor
Montreal, Quebec
H2X 2M8 TEL: (514) 283-3964

New Brunswick Region
565 Priestman Street
P.O. Box 2600, Fredericton, N.B.
E3B 5V6 TEL: (506) 452-3710

Nova Scotia Region
1888 Brunswick Street
Halifax, Nova Scotia
B3J 3E4 TEL: (902) 426-2988

Prince Edward Island Region
199 Grafton Street
Charlottetown, P.E.I.
C1A 8K1 TEL: (902) 892-0211

Ontario Region
4900 Yonge St., Suite 700
Willowdale, Ontario
M2N 6A8 TEL: (416) 224-4500/4501

Newfoundland Region
167 Kenmount Road
P.O. Box 12051
St. John's, Newfoundland
A1B 3Z4 TEL: (709) 737-5331

National Headquarters
Place du Portage, Phase IV, 140 Promenade du Portage
Ottawa, Ontario, K1A 0J9 TEL: (819) 994-4005

3.4 CONSUMER AND CORPORATE INFORMATION: METRIFICATION

The Federal Department of Consumer and Corporate Affairs applies legislative and regulatory powers concerning business people, consumers, and the Canadian public at large.

3.4.1 Information, Consumer and Corporate Affairs

The Field Operations Service includes regional and local offices across Canada, which provide information, publications, & reports based on the activities of the department. The field force includes inspectors of weights and measures, consumer products, fish and food, etc. Consumer consulting and misleading advertising complaints are also a function of the Field Operations Service.

Consumer & Corporate
Affairs, Place du Portage
Phase I, 50 Victoria St.
Ottawa/Hull,
Quebec, K1A 0C9
TEL: (819) 997-2938

3.4.2 Assistance Program: Workers' Metric Tools

This program provides financial assistance to employees who are required to provide their own metric tools to replace non-metric tools because of metric conversion in Canada.

Eligibility - Employees required to provide their own tools for employment at a work location in Canada.

For information on conversion to the metric system contact the address below:
Metric Commission
Box 4509
Ottawa, Ontario
K1S 5J2

3.5 COMMUNICATIONS AND CULTURAL INDUSTRIES

The Department of Communications coordinates financial incentives offered to Canadian publishers, film makers and distributors to increase their presence in Canadian and foreign markets.

3.5.1 Canada Council (CC)

CC promotes and fosters the arts in Canada.

Eligibility - Grants are provided to professional artists in all disciplines, arts organizations, including dance and theatre companies, orchestras and opera companies, art galleries and artist-run spaces, etc.

CONTACT
The Canada Council
255 Albert Street
Ottawa, Ont., K1P 5V8
TEL: (800) 267-8282
Toll Free 237-3400/Ottawa
Ms. M. Claire Pierrard

3.6 EXPORTS AND MARKETING

The Department of External Affairs ensures the following: the conduct of foreign relations serves Canadian trade objectives; economic factors are considered in the design of foreign policy; services are offered to Canadian exporters in an increasingly competitive international marketplace; and that there is policy and program coherence in the conduct of Canada's range of relations with the outside world.

3.6.1 Commercial Representation Abroad

The commercial representatives abroad promote Canada's export trade and protect its commercial interests in foreign countries. External Affairs' commercial representatives abroad Trade Commissioners provide a most useful link between foreign buyers and Canadian exporters.

CONTACT

The department's commercial representatives abroad are listed in the Businessmen's Directory of Canadian Representation Abroad. For your free copy, contact your local DRIE Regional Office Regional Trade Offices or Domestic Information Programs Division Department of External Affairs
Ottawa, Ontario, KIA 0G2
TEL: (613) 593-7064

3.6.2 Cost Recoverable Technical Assistance Program (CRTA)

The purpose of CRTA is to improve Canada's performance in marketing Canadian goods and services abroad through the use of Canadian government experts. In doing so, it focuses on maximizing Canada's private sector involvement.

Eligibility - Commercial contracts between Canadian firms and foreign countries are negotiated and signed by Canadian private sector organizations.

Cost Recoverable
Tech. Assistance Unit
Pacific Trade Development
Division
Department of External
Affairs, Ottawa, Ontario
KIA 0G2
TEL: (819) 995-1281

3.6.3 Export Development Corporation (EDC)

ECD is a Canadian Crown corporation that provides a wide range of insurance and bank guarantee services to Canadian exporters and arranges credit for foreign buyers in order to facilitate and develop export trade.

Eligibility - EDC is sensitive to the needs of the smaller exporter. There is no minimum value of export business required to qualify for support.

Firms are encouraged to consult EDC and their bankers about credit and financing considerations at the earliest possible date when developing plans.

Export Development Corporation
Head Office
110 O'Connor Street, Ottawa, Ontario
K1P 5T9 TEL: (613) 237-2570
Rapidfax: (613) 563-9738
Cable: EXCREDCORP
Telex: 053-4136
Facsimile: (613) 237-2690

Export Development Corporation
Western Region
Suite 1030, One Bentall Centre
505 Burrard Street
Vancouver, British Columbia
V7X 1M5 TEL: (604) 688-8658
Telex: 04-54223
Facsimile: (604) 688-3710

Export Development Corporation
Ontario Region
National Bank Building, Suite 810
P.O. Box 810, 156 York Street
Toronto, Ontario
M5H 3S5 TEL: (416) 364-0135
Telex: 06-22166
Facsimile: (416) 862-1267

Export Development Corporation
Atlantic Region, Suite 1401
Toronto-Dominion Bank Building
1791 Barrington Street
Halifax, Nova Scotia
B3J 3L1 TEL: (902) 429-0426
Telex: 019-21502

3.6.4 Promotional Projects Program (PPP)

To assist Canadian businesses in the exploitation of foreign markets through participation in promotional events.
Eligibility - PPP is designed to benefit as wide a cross-section of Canadian industry as possible.

Further information may be obtained from the nearest DRIE regional office. (See Regional Trade Offices).

3.7 INDUSTRY, REGIONAL AND SMALL BUSINESS INCENTIVES

The merger of elements of the Departments of Industry, Trade and Commerce (IT&C) and Regional Economic Expansion (DREE), completed in December 1983, has resulted in a highly decentralized Department of Regional Industrial Expansion with a strong central core of knowledge and expertise in each of the manufacturing, processing, and service sectors of our economy. The objective of the Department is to increase overall industrial, commercial, and tourism activity in all parts of Canada and, in the process, reduce economic disparity across Canada.

3.7.1 Canadian Industrial Renewal Board (CIRB)

The objective of CIRB is to revitalize the textile, clothing, and footwear industries, to strengthen and diversify the economic base of regions that are heavily dependent on these industries, and to help textile, clothing, and footwear workers adjust to changes.
Eligibility - Canadian manufacturers.

CONTACT

Nearest DRIE office if manufacturer is located in a special area previously designated by CIRB. Canadian Industrial Renewal Board
800 Dorchester Boul. W.
P.O. Box 1510, Station B
Montreal, Quebec, H3B 2L2
TEL: (514) 283-3361

3.7.2 Defence Industry Productivity Program (DIPP)

To enhance economic growth through the promotion of viable defence or defence-related exports; to provide a defence industrial base; to maintain a defence technological capability. Eligibility - Companies that demonstrate the intent to employ advanced technology to develop a defence-oriented capability or capacity directed to defence and civil export sales are eligible.

DRIE Defence
Industry Productivity
Program
235 Queen Street
Ottawa, Ontario
K1A 0H5

3.7.3 Industrial and Regional Development Program (IRDP)

IRDP is the core program of DRIE, designed to promote industrial and regional development in Canada. IRDP is a multi-faceted program of industrial financial assistance designed to combat regional disparities in Canada. Eligibility - Manufacturers and processors.

DRIE's regional development experience with its industrial sector knowledge enables regional offices to respond to local business concerns and opportunities.
DRIE office nearest you.

3.7.4 Machinery Program (MACH)

To provide for remission of duty on machinery imports, related equipment, and parts not produced in Canada.

Applications are available at Canada Custom Offices as well as at DRIE Regional Offices.
For supplementary information:
The Secretary, Machinery and
Equipment Advisory Board
DRIE, 235 Queen Street
Ottawa, Ontario, K1A 0H5
TEL: (613) 992-1004

3.7.5 The Small Business Bond

This program is a tax measure designed to reduce the cost of borrowing for qualifying small business corporations and unincorporated businesses, farmers and fishermen who are experiencing financial difficulty. The net impact, however, is somewhat reduced by the fact that borrowers cannot deduct the interest charges for tax purposes.

Information is available from Revenue Canada district taxation offices, or by phoning (collect) the Small Business Secretariat in Ottawa at (613) 995-9197.

Eligibility - Small Business Bonds may be issued by firms experiencing financial difficulty if they are:

- an individual who is a sole proprietor of an active business;
- a partnership that carries on an active business;
- a corporation which is eligible to claim a small business deduction and is a small business corporation within the meaning of the Income Tax Act;
- a cooperative corporation, all or substantially all of the assets of which are used in an active business carried on by it in Canada.

3.7.6 Small Business Loans Act (SBLA) Business Improvement Loans - The Small Business Loans Act (SBLA) is designed to help new and existing small business enterprises obtain intermediate term loans from chartered banks and other designated lenders to help finance specified fixed asset needs. These business improvement loans are made directly by approved lenders to small business enterprises with the SBLA providing for loss-sharing arrangements between the lenders and the federal government.
Eligibility - Business improvement loans can be made to a small business enterprise operating for gain or profit where the principal business carried on comes within any of the followng classes:

- manufacturing
- service business (including insurance and real estate agencies)
- wholesale/retail trade
- transportation
- construction
- communications. All chartered banks, nearest DRIE office or Small Business Secretariat in Ottawa - (collect calls accepted at (613) 995-9197).

3.7.7 Atlantic Enterprise Program - the program will assist projectsin the Atlantic and Gaspé regions, providing loan guarantees totalling up to $1 billion and interest rate buy-downs of up to 6 percentage points to stimulate and support new private invesment: term loans of a minimum of $250,000, loan guarantees of a maximum of 85 percent of the principal amount of the loan.
Eligibility - businesses in manufacturing and processing, related service sectors, tourism and primary industries.
Information is available from local DRIE office.

3.8 ENERGY AND ENERGY CONSERVATION

The Department of Energy, Mines and Resources is involved with the discovery, development, and utilization of Canada's mineral and energy resources. Research is undertaken in the earth, mineral, and metal sciences and on social and economic analysis. The department can be divided into three sectors: Energy Policy Sector; Mineral Policy Sector; and Science and Technology Sector.

3.8.1 Bioenergy Development Program

Originally part of the ENFOR Program, managed by the Canadian Forestry Service of Environment Canada, The Biomass Conversion program has now been transferred to Energy, Mines and Resources.
Eligibility - Any Canadian organization capable of conducting pertinent research, development, or demonstration work is eligible.

Renewable Energy Division
Energy, Mines and Resources
Canada
460 O'Connor Street
Ottawa, Ontario, K1A 0E4.

3.8.2 Canada Centre for Mineral and Energy Technology (CANMET) Energy Conversion Cost-Shared Program 1984/85

CANMET solicits proposals for cost-shared R&D work on all of Canada's fossil fuel resources: coal, oil sands, oil shale, heavy oil, conventional oil, and natural gas. The research undertaken by CANMET reflects national and regional needs and is designed to complement research by the private sector.

Eligibility - Industries involved in energy supply, processing, or utilization, and other organizations interested in energy conversion.

CANMET
Technology Information
Div., EMR, Ottawa, Ont.
K1A 0G1
TEL: (613) 995-4059

3.8.3 Canadian Industry Program for Energy Conservation (CIPEC)

This program is designed to set and monitor energy efficiency goals, disseminate information on energy management and act as an interface between industry and government on energy issues.

Eligibility - Open to all industrial sectors.

Industrial Energy Div.
Conservation and Oil
Substitution Branch EMR,
Ottawa, Ont. K1A 0E4
TEL: (613) 995-9447

3.8.4 Industry Energy Research and Development Program (IERD)

To provide funds to enable industry to develop new technologies in the field of energy conversion.

Eligibility - The program is open to companies incorporated in Canada, groupings of companies and individuals, trade and resource organizations, and consulting firms.

Industrial Energy Div.
Energy Conservation &
Oil Substitution Br.
EMR, 580 Booth Street
Ottawa, Ontario, K1A 0E4
TEL: 995-9447

3.8.5 Wind Energy Technology

To encourage R&D in this area, the February 1986 budget proposes that wind energy equipment will be eligible for a faster capital cost allowance write-off, effective February 26, 1986.

Eligibility - Specified equipment which generates electricity by use of wind will be eligible for a 3-year write-off.

CONTACT: Industrial Energy Division

Industrial Energy Div.
Energy Conservation &
Oil Substitution Br.
EMR, 580 Booth Street
Ottawa, Ontario, K1A 0E4
TEL: 995-9447

3.9 ENVIRONMENT

Environment Canada concentrates on raising public awareness of environmental issues such as acid rain and other pollution hazards. The Environmental Protection Service produces seminars on toxic substances, hazardous waste management, oil spills, and enforcement strategies.

3.9.1 Development and Demonstration of Resource and Energy Conservation Technology (DRECT)

DRECT is a cost-sharing program to encourage the development and demonstration of prototype systems and new technology designed to recover or recycle wastes. Saving energy, especially the energy derived from non-renewable resources, is a main objective of DRECT.

Eligibility - Private industries and organizations, as well as provincial and municipal authorities working with innovative methods, procedures, processes, or equipment.

CONTACT
Regional offices of the Environment Protection Service or directly to: DRECT Program
Technical Services Br.
Environment Protection
Service ENV,
Ottawa, Ontario K1A 1C8
TEL: (819) 997-3405

3.10 FINANCIAL, BANKING AND MANAGEMENT SERVICES

The Federal Business Development Bank (FBDB) is a Crown corporation that exists to promote and assist most types of businesses in Canada either at the startup stage or at some other stage in their development. It pays particular attention to the needs of small and medium-sized businesses. FBDB offers three principal services to Canada's business community: financial services (loans, loan guarantees, and financial planning), investment banking, and management services such as counselling, training, and information.

To locate the closest FBDB branch call the toll free numbers listed below, consult the telephone directory, or contact one of the Regional Offices listed below:

Atlantic Regional Office
Federal Business Development Bank
Suite 1400, Cogswell Tower
Scotia Square, Halifax, Nova Scotia
B3J 3K1 TEL: (903) 426-7860

Ontario Regional Office

Federal Business Development Bank
250 University Avenue
Toronto, Ontario
M5H 3E5 TEL: (416) 593-1144

British Columbia and Yukon Regional Office
Federal Business Development Bank
900 West Hastings Street
Vancouver, British Columbia
V6C 1E7 TEL: (604) 687-1300
Toll Free Numbers: 1-800-361-2126
British Columbia Area: 112-1-800-261-2126

Quebec Regional Office
Federal Business Development Bank
800 Victoria Square
Montreal, Quebec
H4Z 1C8 TEL: (514) 283-3657

Prairie and Northern Regional Office
Federal Business Development Bank
161 Portage Avenue
Winnipeg, Manitoba
R3B 0Y4 TEL: (204) 943-8581

3.11 FISHERIES AND OCEANS

The Federal Department of Fisheries and Oceans is responsible for fisheries management and research in coastal and inland waters; fisheries economic development and marketing; international fisheries negotiations; oceanographic research; hydrographic surveying and charting; and the development and administration of fishing and recreational harbours.

3.11.1 Fisheries Improvement Loans

To facilitate the availability of credit to fishermen for a variety of fisheries improvement projects.

Eligibility - fishermen, a person who owns or plans to obtain a fishing vessel, or fish catching and related equipment, and makes his/her living by fishing.

CONTACT

Fishermen seeking assistance should apply to lending agency of choice.

For general information:
Fisheries Improvement Loans
Administration
F&O, 240 Sparks Street
Ottawa, Ontario, K1A 0E6

3.12 NATIVE AND NORTHERN DEVELOPMENT

The Department of Indian and Northern Affairs is responsible for the government's special policy and programs concerning the Indian and Inuit people.

3.12.1 Inuit Economic Development Program

To further the economic and social betterment of Inuit by encouraging and assisting the planned development of Inuit-controlled business enterprises.

Eligibility - Individual Inuit, groups of Inuit, Inuit cooperatives, companies.

CONTACT

For applicants in the NWT: nearest NWT economic development officer.

For applicants elsewhere in Canada:
Department of Indian Affairs
and Northern Development
320 East St. Joseph Street
P.O. Box 3725, St. Roch, P.Q.
G1K 7Y2 TEL: (819) 694-4133

3.12.2 Native Economic Development Program

This will assist native people in the development of economic self-reliance.

Eligibility - All Inuit, Métis, Status and Non-Status Indians in Canada.

Local DRIE office, or Native
Economic Develop. Program
330 Portage Avenue, Suite 1103
Winnipeg, Manitoba, R3C 0C4

3.13 COLLECTIVE BARGAINING, INDUSTRIAL RELATIONS AND EQUAL OPPORTUNITY INFORMATION AND SERVICES

It is Labour Canada's objective to promote better industrial relations between management and employees.

3.13.1 Financial Assistance Program for Labour Education

To encourage smoother collective bargaining by a better informed union membership; to assist labour in obtaining a more knowledgeable participation in socio-economic affairs; and to achieve a more equitable distribution of educational support.

Additional information
may be obtained from:
Labour Education Unit
Labour Canada
Ottawa, Ontario, K1A 0J2
TEL: (819) 997-2861

Eligibility - All legally constituted labour organizations in Canada, and individual union members.

3.13.2 Industrial Relations Information Service (IRIS)

To assist parties on both sides of the employee/employer relationship with respect to their information requirements.

Eligibility - IRIS is a "one-stop" information service offered by Labour Canada to the industrial relations community in Canada, i.e. individuals, and organizations involved in industrial relations and collective bargaining, in either federal or provincial jurisdiction.

TEL: (819) 997-3117,
collect calls accepted.
Telex: 0533640
Mail: IRIS
Labour Canada
Ottawa, Ontario, K1A 0J2

3.13.3 Women's Bureau

To promote equality between men and women in the workplace through research, policy development, and public education.

Eligibility - The Bureau's client groups include women's organizations, professional associations, governments at all levels, educational institutions, business, labour and the Canadian public.

CONTACT
Women's Bureau
Labour Canada
Ottawa, Ontario, K1A 0J2
TEL: (819) 997-1550

3.14 SCIENTIFIC INFORMATION AND SERVICES

The National Research Council coordinates the bulk of the programs in this area. It's operational activities are organized under two distinct areas. Scientific and Industrial Research Programs encompass basic and exploratory research with the purpose of acquiring new knowledge and expertise in addition to researching long-term problems of national concern. Scientific and Technical Information Programs include those that involve the collection, storage, and retrieval of scientific and technical information. Information of value to the business person is also available from other government agencies, organizations and Crown corporations.

3.14.1 Canada Institute for Scientific and Technical Information (CISTI)

To provide Can. researchers, technologists, and managers in industry, university, and government with scientific and technical information at the right time and place, and in the right form.

Call Ottawa/Hull at
(613) 993-1600.

3.14.2 Industrial Research Assistance Program (IRAP)

IRAP is a salary support program designed to increase the calibre and scope of industrial research and development through the use of the latest available technology.
Eligibility - Generally oriented towards small and medium-sized manufacturing firms.

For more information on contributions to large projects contact the IRAP office in Ottawa, TEL: (613) 993-0331.
For salary support programs:
INDUST. RESEARCH ASSIST. PROGRAM, NRC, Building M-55
Montreal Road, Ottawa, Ont.
K1A 0S3 TEL: 993-3431/3995

3.14.3 Program for Industry/Laboratory Projects (PILP)

PILP is designed to assist Canadian companies to undertake projects that take advantage of technology in the form of scientific and engineering knowledge and resources existing within government laboratories.
Eligibility - Canadian-based companies with the appropriate financial, managerial, technical, manufacturing, and marketing capabilities can participate in this program.

Further information can be obtained by contacting
(PILP) Gen. Manager
Dr. John Vose
TEL: (613) 993-0357

3.14.4 Research Divisions

The National Research Council, the Federal Government's largest and most diversified research organization, is dedicated to developing and maintaining a knowledge base for Canada's present and future needs, and to applying science and technology to the economic and regional development of the country.

CONTACT
NRC, Montreal Road
Ottawa, Ontario, K1A 0R6

3.14.5 Natural Sciences and Engineering Research Council (NSERC) University-Industry R&D Program

The Natural Sciences and Engineering Research Council, the largest single funder of university R&D in Canada, supports a spectrum of R&D activities to promote greater cooperation between university researchers and Canadian industry.

For info. on NSERC'S programs at the university-industry interface:
Mr. Paul W. Latour
Assistance Director
(University-Industry Interface)
Natural Sciences and Engineering Research Council
Ottawa, Ontario, K1A 0R6
TEL: (613) 593-6789

3.15 SPACE COMMUNICATIONS

3.15.1 Space Industry Development Program

This program encourages the participation of Canadian industry in the design, development and construction of communications satellite systems and components.

CONTACT
Ottawa/Hull
(613) 996-9401, or
nearest district office
of the Department of
Communications.

4. PROVINCIAL INCENTIVE PROGRAMS

4.1 ONTARIO

4.1.1 Ontario Development Corporation (ODC) (EODC) (NODC)

Financial assistance for the establishment and expansion of secondary manufacturing industries, services closely allied with secondary manufacturing, and tourism operations and attractions.

For field offices,
See Attached List "A"

Eligibility - Proposals (entrepreneur or established business) will be assessed against regional, technical, export, and social considerations to ensure overall compatibility with the province's economic priorities and the applicant's need for ODC participation.

4.1.2 Small Business Development Corporation(SBDC)

To encourage equity investment in Ontario-based small businesses, incentives are provided to those who buy shares in an SBDC(s) for the purpose of directing the invested funds to qualifying businesses.

Eligibility - Applicant must employ no more than 150 full-time employees. Seventy-five percent or more of the employees (salaries and wages) have to be paid in Ontario. The applicant must be primarily involved in either manufacturing and processing, tourism, book publishing, or prescribed research and development. The investment cannot be used for purposes relending, investment in land, or any kind of reinvestment outside of Canada.

a) Information:
Field Offices Minis. of
Industry, Trade & Tech.
Ministry of Revenue
TEL: (Call Toll-Free
Metro Toronto 965-8470
Area Code 807 ask Oper.
for Zen. 8-2000 other
areas 1-800-268-7121
b) Policy intent interpretations and rulings:
Ministry of Treasury &
Econom., Frost Bldg.S.
Toronto, Ont., M7A 1Y7
TEL: (416) 965-6869

4.1.3 Ministry of Industry, Trade and Technology Manufacturing Productivity Services

To provide consulting services to small manufacturing companies.

Eligibility - New or existing Ontario manufacturers and their support industries.

CONTACT
Field Offices:
Ministry of Industry,
Trade and Technology
(See attached list "B")

4.1.4 Investment Marketing Counselling Assistance to Potential Investors

Information on investment opportunities, coordination of visits. Fact book available on Ontario.

(416) 965-9700 or
Ontario's international
offices.

4.1.5 New Plant Location Counselling Service

To assist manufacturers to find new locations or expand manufacturing facilities.

Eligibility - Any manufacturer.

Field Offices
Ministry of Industry,
Trade and Technology

4.1.6 Industry and Trade Research

A free service to improve the availability of research data.

Eligibility - New or existing Ontario manufacturers and their support industries.

CONTACT
Field Offices
Ministry of Industry,
Trade and Technology

4.1.7 Financial Planning Model for Manufacturers

The objective of this program is to help small manufacturing companies plan ahead, and introduce them to the techniques of financial planning and to the capability of computer financial modelling.

Field Offices
Ministry of Industry,
Trade and Technology

Eligibility - Any federal or provincial chartered Canadian-owned small manufacturing company. The company should be past its start-up phase and have adequate financial records.

4.1.8 Immigrant Entrepreneur Program

Counselling on business proposals for small foreign investors.

Ontario's international
offices or 416-965-5331.
Field Offices
Ministry of Industry, Trade
and Technology

4.1.9 The Technology Centres

The centres assist small and medium-sized firms in adapting new technology within their businesses.

- Microelectronics Technology Centre: to assist small and medium-sized manufacturers to obtain, understand, and adapt custom-made semiconductors (chips) for new product innovations; promote a general awareness of the innovative potential of microelectronics and provide a focal point for the development of educational resources to meet the training challenges of microelectronic technology.

  Microelectronics Technology Centre, 1150 Morrison Drive
  Ottawa, Ontario, Telephone: 613/596-6685

- Robotics Technology Centre, Peterborough, and the Computer-Aided Design and Computer-Aided Manufacturing (CAD/CAM) Technology Centre, Cambridge, combine to promote and encourage the adoption of leading-edge innovative manufacturing technologies, especially among small and medium-sized firms throughout Ontario.

  (a) Ontario Centre for Advanced Manufacturing - Robotics
  743 Monaghan Road, Peterborough, Ontario, K9J 5K2, 705/876-1611
  (b) Ontario Centre for Advanced Manufacturing - CAD/CAM
  400 Collier-MacMillan Drive
  Cambridge, Ontario, N1R 7H7 519/622-3100

- Resource Machinery, Sudbury. This centre is designed to investigate opportunities for developing domestic machinery and equipment manufacturing capabilities for resource-based industries.

  Ontario Centre for Resource Machinery
  127 Cedar Street, 4th Floor
  Sudbury, Ontario, P3E 1B1, 705/673-6606

- Auto Parts Centre, St. Catharines. A focal point for bringing together the interests of parts suppliers, automotive companies, unions, universities, research organizations, and governments to develop programs to keep pace with the rapid evolution of parts technology both within North America and abroad.

  Ontario Centre for Automotive Parts
  63 Church Street, 2nd Floor
  St. Catharines, Ontario, L2R 3C4, 416/688-2600

- Farm Equipment and Food Processing Technology Centre, Chatham. This centre will work closely with Ontario-based research institutions, food processors, manufacturers, and growers to adapt and introduce state-of-the-art technology for use here and around the world. The centre will adapt and demonstrate farm and food processing machinery, test the operation and safety of farm equipment, provide information on farm and food processing and machinery, and give food processors a consulting service of extension specialists and technicians.

  Farm Equipment and Food Processing Technology Centre
  870 Richmond Street, Chatham, Ontario, N7M 5J5, 519/354-6883

- Ontario Centre for Advanced Manufacturing. This centre encourages Ontario-based manufacturers to improve their technology of manufacturing process capability.

  Centre for Advanced Manufacturing - Windsor
  2795 Kew Drive, Windsor, Ontario
  N87 3B7, 519/974-3377

- For further information on the centres, contact

  Innovation and Technology Division
  Ministry of Industry, Trade and Technology
  3rd Floor, Hearst Block
  900 Bay Street, Toronto
  M7A 2E1, Telephone: 416/963-1373

4.1.10 Ontario Research Foundation (ORF)

The Ontario Research Foundation (ORF) provides manufacturing industry, particularly small and medium-sized companies, with advisory and assistance services in the fields of science, engineering, and technology.

Eligibility - All manufacturing industries.

CONTACT

Ont. Research Foundation
Sheridan Park Research
Community
Mississauga, Ont.,
L5K 1B3
TEL: (416) 822-4111

4.1.11 New Fighter Aircraft (NFA)

To inform Canadian companies on details of the CF-18 McDonnell-Douglas contract and to advise those who are interested in participating in the program.

Eligibility - Any Canadian company actively interested in the aerospace or related industry.

CONTACT

Field Offices
Ministry of Industry,
Trade & Technology

4.1.12 Promotional Aids to Marketing Program (PAMP)

To provide financial assistance in the professional design and printing of sales brochures, literature, and instructional material for new innovative products. These products must be manufactured by small Canadian-owned, Ontario-based, secondary manufacturers lacking the financial resources to carry out the project. The product must be ready for market.

Eligibility - The product must have a minimum realistic sales potential of $200,000 in the first year. The goal must be supported by a sound marketing plan and backed up with acceptable data.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.13 Manufacturing Opportunity Shows

This program aims to stimulate domestic production through local and regional shows of products manufactured outside Canada.

Eligibility - Canadian or foreign manufacturers seeking domestic production of products that are imported. Must be sufficient volume to justify domestic manufacture.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.14 Domestic Trade Fairs

To increase sales of Ontario manufactured goods in the Canadian market.

Eligibility - a) Canadian companies with Canadian manufactured products.
b) Agents and distributors of such products.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.15 Sector Import Replacement

Program directed at specific sectors to encourage Canadian manufacturers to manufacture items that are at present imported.

Eligibility - Manufacturers are invited to attend manufacturing opportunity shows and workshops as announced.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.16 Export Support Loans

To develop additional exports that would not ordinarily be financed by conventional sources. Provides an operating line of credit to Ontario based exporters who are encountering difficulties in financing sales to other countries.

Eligibility - Any Ontario manufacturer who cannot obtain financing from any other source.

CONTACT: Local Offices, Ontario Development Corporation.

4.1.17 Intern Program - Marketing

To aid Ontario companies desiring to hire a recent university graduate to develop export markets abroad.

Eligibility - Ontario industry.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.18 Incoming Buyers

To introduce major international buyers to Ontario manufacturers.

Eligibility - Accredited foreign buyers.

CONTACT: Field Offices, Ministry of Industry and Technology.

4.1.19 Export Consortia

To develop Ontario exports through the utilization of joint export marketing.

Eligibility - Ontario manufacturers. Export Consulting Group, Queen's Park, Toronto, Ontario.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.20 Trade Exhibitions

To expand Ontario's international markets through participation in major international trade exhibitions in foreign countries.

Eligibility - Any approved Ontario manufacturer. Between 5 and 15 manufacturers take part in each show.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.21 Trade Missions/Regional Trade Fairs

To help Ontario exporters develop and expand.

Eligibility - Any approved Ontario manufacturer.

CONTACT: Field Offices, Ministry of Industry, Trade and Technology.

4.1.22 Ontario International Corporation

Ontario International Corporation is the primary international marketing agency for the Ontario Government, specializing in transactions with foreign governments or international agencies.

Eligibility - Ontario consulting engineers, architects, contractors, management consultants, and consortia of capital goods manufacturers.

CONTACT: Ontario International Corp., Field Offices, Ministry of Industry, Trade and Technology, Queen's Park.

4.2 PRINCE EDWARD ISLAND

4.2.1 P.E.I. DEVELOPMENT AGENCY AND FUND

4.2.1.1 Pre-Venture Fund

The Agency administers a Pre-Venture program designed to encourage commercial exploitation of sound business ideas by providing grants to a business or entrepreneur who requires assistance to develop and prove their ideas for a new or expanding business.

Eligibility - Grants will be available to sole proprietorships, partnerships or incorporated companies for initial pilot or test operations leading up to the establishment at commercially feasible levels of new or expanded businesses in the following types of activity:

* manufacturing or processing industries or industries offering services to manufacturing and processing;
* industrial research and development;
* computer software development operations, when in support of computer hardware manufacturing;
* controlled aquaculture and agriculture on a year round basis in an environment outside the natural and/or traditional habitats;
* film and sound production;
* publishing operations, other than newspapers;
* small service businesses which represent the first of their kind in the community.

4.2.1.2 Industrial Sites

Serviced industrial sites are available for purchase in the West Royalty, Parkdale and Summerside Area Industrial Parks.

Eligibility - All manufacturers and processors operating or intending to operate on Prince Edward Island are eligible to apply for the purchase of industrial land. Financing of the land purchase may be assisted under the Manufacturing and Processing Term Loan Program.

4.2.1.3 Industrial Malls

Industrial mall spaces are available for lease to manufacturers and processors in the West Royalty and Summerside Area Industrial Parks.

Eligibility - All manufacturers and processors operating or intending to operate on Prince Edward Island are eligible for assistance under the program.

4.2.1.4 Rental Incentives to Industry

Leased space in communities not now being serviced by existing industrial malls is available to manufacturers, processors, services to manufacturers and processors, and certain other activities.

Eligibility - All new or expanding:

* manufacturers or processors;
* services to manufacturers or processors;
* industrial research and development;
* computer software development when in support of computer hardware manufacturing;
* controlled aquaculture and agriculture on a year-round basis in an environment outside their natural habitats;
* film and sound production and publishing;

4.2.1.5 Investment Incentive Program

This program will encourage private sector investment in new or expanded manufacturing and processing facilities by providing grants to help offset the high cost of investment. The scale of the grant for the individual project proposals will be based on:

* Number of jobs created and maintained;
* Amount of payroll.

Eligibility - Assistance will be available to sole proprietorships, partnerships, or incorporated companies engaged in manufacturing and processing operations. Addditional eligibility requirements are:

* The new or expanded manufacturing or processing facility and the eligible jobs must be located in Prince Edward Island;
* The project must create a minimum of three jobs and must make a minimum capital investent in fixed assets of $50,000.

4.2.1.6 Small Business Equity Program

Through the Small Business Equity Program, the Prince Edward Island Development Agency (the "Agency") will purchase up to $100,000 in non-voting preferred shares in a small business to provide a source of financing without adding a debt burden to the small business. The small business will be expected to redeem the preferred shares within a five to seven year period. Small Business is defined as any business with less than 100 employees and no more than $5,000,000 in sales. The application approval will be based on:

- Potential for substantially improved earnings;
- Job creation potential;
- Economic significance of the project to P.E.I.;
- Future ability to redeem preferred shares on schedule;
- Availability of budget funds within the Agency.

Eligibility: Projects to be considered must demonstrate potential for significant earnings or earnings growth either through expansion, modernization or financial restructuring of existing businesses or establishment of a new business. Eligible activities include:

- manufacturing, processing or industries offering services to manufacturing and processing;
- industrial research and development;
- computer software development, when in support of computer hardware manufacturing;
- controlled aquaculture and agriculture on a year-round basis in an environment outside the natural and traditional habitats;
- film and sound production;
- publishing, other than newspapers;
- tourism investments.

4.2.1.7 Small Business Development Corporation

A non-repayable cash grant is provided to investors to encourage formation of Small Business Development Corporations which will invest in eligible P.E.I.-based businesses. The cash grant is available to residents of P.E.I. (individual or companies) and is calculated at 30% of the equity investment made by the investor in the Small Business Development Corporation. A chartered accounting firm has advised that the grant would be considered as a reduction of the cost base to the investor for the shares of the SBDC and not as taxable income.

4.2.1.8 Manufacturing and Processing Term Loans

Term loans are provided to new and existing manufacturers and processors for the purpose of acquiring capital assets such as manufacturing and processing equipment and production facilities. Assistance may also be in the form of working capital for companies that export a significant portion of production off Prince Edward Island. Bridge financing related to approved Federal incentive grants is also available.

Eligibility - All manufacturers and processors operating or intending to operate on Prince Edward Island are eligible to apply for term loans.

4.2.1.9 Venture Capital

This program is designed to encourage the establishment of the venture capital companies (venture companies) by the private sector, for the purpose of providing both capital and management assistance to new and existing manufacturing and processing firms. Prince Edward Island Development Agency assistance will normally be in the form of a direct loan; however, under exceptional circumstances, the Agency may acquire preferred shares in the corporation.

Eligibility - To be eligible for assistance from the Agency, the venture corporation must be registered in Prince Edward Island and must operate exclusively as a venture corporation in supplying capital and management services to small business enterprises.

4.2.1.10 Sales Assistance

The Sales Assistance Program is designed to assist in the identification and exploration of new sales opportunities for primary producers, producers' organizations, processors and manufacturers.

Eligibility - Clients must be primary producers, producers' organizations, processors or manufacturers operating in Prince Edward Island.

4.2.1.11 Advertising and Promotion

The Advertising and Promotion program provides the assistance required by primary producers, producers' organization, processors and manufacturers to advertise and promote both their products and companies.

- Eligible clients must be primary producers, producers' organizations, processors or manufacturers established and operating in Prince Edward Island.
- Only products produced, processed or manufactured in Prince Edward Island are eligible.

4.2.1.12 Product Development

Financial and technical assistance is available to primary producers, producers' organizations, processing and manufacturers to assist in the development and evaluation of new and improved products and processes.

Eligibility - Eligible clients must be primary producers, producers' organizations, processors or manufacturers established and operating in Prince Edward Island. A new product need only be new to the particular company requesting assistance. Projects eligible for assistance through the Federal Department of Regional Industrial Expansion (DRIE) will not be eligible under this program.

4.2.1.13 Market Research, Information and Education

This program provides both the financial and technical assistance required by primary producers, producers' organizations, processors' organizations, processors and manufacturers to upgrade their marketing skills.

- Eligible clients must be existing or potential primary producers, producers' organizations, processors or manufacturers located or to be located in P.E.I.
- Projects eligible for assistance through the Federal Department of Regional Industrial Expansion (DRIE) will not be eligible under this program.

4.2.1.14 Marketing Plans

This program provides the support required by P.E.I. companies to prepare and implement both short and long term marketing plans.

Eligibility - Clients eligible for assistance under this program are primary producers, producers' organizations, processors or manufacturers established and operating in P.E.I. Only products produced, processed or manufactured in Prince Edward Island are eligible for inclusion in the marketing plan.

4.2.1.15 Trade Shows and Displays

Technical and financial assistance is available to primary producers, producers' organizations, processors and manufacturers to prepare displays for and to attend product trade shows.

- Clients eligible for this program are primary producers, producers' organizations, processors or manufacturers established and operating in P.E.I.
- Only products produced, processed or manufactured in P.E.I. are eligible.
- Clients must demonstrate the ability or potential to complete successfully in the market area(s) covered by the trade show or display.
- Clients must demonstrate that the market area(s) covered by the trade show or display offers new or inreased sales opportunities.
- Clients must provide qualified personnel to staff their exhibit who are able to negotiate sales on behalf of the company.

4.2.1.16 Licensing/Joint Venture

Financial and technical assistance is provided to manufacturers and processors to secure licensing agreements and joint ventures.

- Eligible clients must be processors or manufacturers located in P.E.I.
- Only products that have an identified market opportunity will be considered.
- The company must demonstrate that they have, or are able to acquire, the necessary production facilities and management capabilities.

4.2.1.17 Export Contracting

The Export Contracting Program is designed to encourage export activity by Island companies. The P.E.I. Development Agency will secure export contracts and will contract with Island companies to supply the products.

- Eligible clients must be firms established and operating in Prince Edward Island, who lack experience in exporting a particular product or are inexperienced in doing business in a particular export market.
- Clients must demonstrate the ability to meet export contract requirements while maintaining present domestic markets.
- Clients must clearly show the commitment and ability to export on a continuous basis.
- Clients will be rquired to fully participate in all aspects of the program in order that they may gain sufficient knowledge of export marketing to continue exporting in the future.

CONTACT: Prince Edward Island Development Agency Marketing Division
West Royalty Industrial Park Charlottetown, P.E.I., CIE IB0
(TELEPHONE): (902) 566-4222 (TELEX): 014-44109

4.2.2 Industrial Prospecting

This program is designed to assist Island entrepreneurs to identify and pursue new developmental investment opportunities in the manufacturing and processing sectors.

Industry Branch, Department of
Tourism, Industry and Energy
P.O. Box 2000, Charlottetown
P.E.I. CIA 7N8
Telephone: (902) 892-7411

Eligibility - Projects to be investigated must represent new developmental opportunities and must be within the manufacturing and processing sectors. The applicant must demonstrate the seriousness of his pursuit to determine a new production activity or investment opportunity. The final eligibility of a project and the approval of eligible costs will be determined jointly by the Department of Tourism, Industry and Energy and the Department of Regional Industrial Expansion (DRIE). Market identification and promotional activities are not eligible for assistance under this program.

CONTACT: Industry Branch, Department of Tourism,
Industry and Energy, P.O. Box 2000, Charlottetown, Prince Edward Island
C1A 7N8, TELEPHONE: (902) 892-7411

4.2.3 Industrial Research

This program provides funds to contract consultants to research specific opportunities in the manufacturing and processing industries, and to conduct detailed feasibility studies of such opportunities.

Eligibility - The services of a consultant may be contracted by the Department as the result of a perceived opportunity, or the contracting of such services may result from a request initiated by a private businessperson or an industry group. Opportunities to be investigated must be within the manufacturing or processing industries. Should the request originate from a private businessperson, the ability to implement those recommendations which might result from the consultant's report must be demonstrated. Projects eligible for assistance under the Industrial Development Programs of the federal Department of Regional Industrial Expansion (DRIE) will not be eligible for assistance under this program.

4.2.4 Management Training

Funds will be provided to assist in covering the cost of a wide range of management seminars, workshops and courses designed to upgrade the management skills of Island business people.

Eligibility - Applications for assistance are invited from educational institutions and from private industry associations. Individual businessmen, while not formally organized as an association, are also encouraged to submit requests for assistance. The course, seminar or or workshop for which assistance is requested must be designed for management and supervisory personnel and should concentrate on improving and/or upgrading the managerial skills of the participants. Requests for assistance must include evidence that there is a sufficient number of private businessmen interested in attending the course, or an indication of how sufficient interest will be generated. Costs eligible for assistance include instructor's fees, travel and accommodation, facility rental, promotion costs, materials, coordination expenses, etc.

4.2.5 Research and Planning Human Resource Planning

The objective is to provide employers or potential Island employers with information on human resource planning and the existing human resource base.

4.2.6 Research and Planning Labour Market Information Service

This service provides employers with data on wage rates by occupation, employment in various industries and other labour market information.

4.2.7 Tuition

The Tuition Assistance Program is designed to encourage owners and senior level employees of Island-based businesses to improve their management capabilities by reimbursing a portion of the costs of attending approved courses and seminars.

Eligibility - The Tuition Assistance Program is open to owners and senior level employees of all Island-based businesses. The course or seminar for which assistance is requested must provide a direct contribution to the applicant's day-to-day management activities. The course or seminar must be offered by a recognized educational institution or by a qualified instructor. A person who is enrolled in a long term upgrading program, such as obtaining a University degree, will not be reimbursed formore than three courses (or 18 semester hours) of the upgrading program. Assistance is also available for out-of-province management courses and seminars, provided a similar course is not available locally. Courses of a technical, as opposed to a managerial, nature are not eligible for assistance.

4.2.8 Venture Planning Service

This service explores the feasibility of business startup ideas and prepares with the client a business management plan. Plans normally address market, operations, financing, and overall feasibility.

Dir., Community Economic
Develop., P.O. Box 2000
Department of Industry
Charlottetown, P.E.I,
CIA 7N8 TEL: (902) 892-5445

4.2.9 Craft Production Co-operative Assistance Program

This program is intended to assist individual craftspeople to organize their production capability as a group in order to enter new market places based upon their collective products. The program also is intended to encourage production oriented groups through which individual craftspeople will find product development and marketing support.

Eligibility - This assistance is available to groups involved in the Craft Industry having a minimum of fifteen members. The Charter of the co-operative or group must indicate that objectives of the co-operative include the production of quality crafts for sale and assisting its members to receive incomes from the same of crafts.

CONTACT: Manager, Handcraft Development Section, P.E.I. Department of Industry, P.O. Box 2000, Charlottetown, P.E.I., CIA 7N8,
TELEPHONE: (902) 892-5445

4.2.10 Craft and Cultural Industries Support Services

Assistance to groups or individuals for a range of services aimed at improving the income potential from their products or services. Specific areas for support may include: management training, business counselling, design specialists, workshops, extension courses, booth displays and exhibitions. Support will be offered as part of the general business extension service of the Division and required services will be identified through ongoing consultation with individual clients and organizations.

Eligibility - Any craft or cultural industry operator or association may apply for assistance.
CONTACT: Manager, Handcraft Development Section, P.E.I. Department of Industry, P.O. Box 2000, Charlottetown, P E.I., CIA 7N8,
TELEPHONE: (902) 892-5445

4.2.11 Cultural Product Development Fund

To stimulate the development of Island products, thereby strengthening local cultural enterprises, contributing to provincial economic development, and creating increased demand for artistic creations.

Eligibility - Applications for assistance are invited from existing cultural enterprises that have been in business for at least one year. Applicants must demonstrate the ability to produce quality, marketable, cultural products. Cultural products are defined as published books and periodicals, film productions, sound recordings, stage plays, and certain other reproducible forms of cultural expression. Only non-capital development costs are eligible for assistance. Assistance is available to secondary producers only (publishers, film companies, etc.). Assistance to primary cultural producers (artists), is available through the P.E.I. Council of the Arts and other programs of the Department of Community and Cultural Affairs. Priority will be given to projects that will contribute to the long term viability of the cultural enterprise making application.
CONTACT: Cultural Affairs Division, Department of Community & Cultural Affairs, P.O. Box 2000, Charlottetown, P.E.I., CIA 7N8, TELEPHONE: (902) 892-0311; or Community Economic Development Division, Department of Industry, P.O. Box 2000, Charlottetown, P E.I., CIA 7N8, TELEPHONE: (902) 892-5445

4.2.12 Rural Business Centre Program

The program objectives are to facilitate the provision of additional local services in theprovince's rural areas, to create additional local employment opportunities, and to encourage enterpreneurship.
Eligibility - Communities - projects must be submitted by an authorized community economic development organization and be supported by the municipality. Both renovation and new construction may be considered. Preference will be given to proposals where the new business will complement existing commercial services and will make a significant contribution to the community's economic development. New Business Operators - This program is available on a one-time basis only to new first time entrepreneurs who do not quality for other provincial or federal government financial assistance programs.
CONTACT: Community Economic Development Division, Department of Industry, P.O. Box 2000, Charlottetown, P.E.I., CIA 7N8
TELEPHONE: (902) 892-5445

4.2.13 Craft and Cultural Industry Grant Program

The program objective is to encourage and accelerate desirable development within the craft and cultural indutries, with the aim of developing and maintaining year-round employment opportunities in the province.

Eligibility - Applicants must be full-time craftspeople or have the potential to become a full-time craftsperson or operate a cultural indutry. Eligible cultural industries include publishing, film making or video production and sound recording. Applicants must provide evidence of capability of producing a product in sufficient quantity and of a high enough quality to permit a viable commercial operation. Applicants must provide evidence of market acceptance of product he or she plans to produce. Applicant must earn a minimum of fifty percent (50%) of his/her income from the production and sale of craft and/or cultural products. Application for a grant must be submitted prior to the commencement of the project. Funding shall not be provided for projects already receiving financial support from other provincial or federal programs.
CONTACT: Manager, Handcraft Development Section, P.E.I. Department of Industry, P.O. Box 2000, Charlottetown, P.E.I., CIA 7N8
TELEPHONE: (902) 892-5445

4.2.14 Student Policy Projects

Students enrolled in the fourth year of the Business Administration program at the University of Prince Edward Island work in teams to prepare a detailed feasibility study to determine the viability of a potential new business opportunity.
Eligibility - The students must meet the guidelines specified by the University of P.E.I. School of Business Administration.

CONTACT
Industry Branch
Department of Tourism,
Industry and Energy
P.O. Box 2000
Charlettetown, P.E.I.
CIA 7N8
TEL: (902) 892-7411

4.2.15 Student in Industry

This program is a student counsulting/employment program whereby small firms receive financial assistance to employ a junior or senior university business student for the summer months.
Eligibility - Assistance will be available to manufacturers, processors and service businesses operating in Prince Edward as sole proprietors, partnerships or incorporated companies. As the number of firms eligible for assistance is limited, preference will be given to those firms who have not previously participated in this program. Eligible projects include management activities such as financial planning, general accounting funtions, production design and control, marketing research and analysis, and inventory control. The job description provided by the applicant should indicate that the student's duties will result in substantial mutual benefits for both the student and the employer in terms of practical experience for the student and managerial assistance for the firm.
CONTACT: Industry Branch Department of Tourism, Industry and Energy
P.O. Box 2000, Charlottetown, Prince Edward Island, CIA 7N8
TELEPHONE: (902) 892-7411

4.2.16 Graduates-in-Business

This program is aimed at accelerating the identification and start-up of new small businesses appropriate to the environment of Prince Edward Island and thereby creating needed additional job opportunities.

Eligibility - Applicants must have a degree/diploma/certificate from an accredited University or a two year College post-secondary course. This degree/diploma/certificate must be in a course of studies which will assist the applicant to manage his/her business successfully. Applicants must have graduated within the last three years and must be presently unemployed and/or underemployed as regards to his/her qualifications.
CONTACT: Industrial Development Division, Department of Industry,
P.O. Box 2000, Charlottetown, P.E.I., CIA 7N8
TELEPHONE: (902) 892-5445

4.2.17 Career Internship Program

The program assists small businesses in expanding their technical and administrative capabilities; provides youth with experience in area directly related to his/her training and facilitates the university and community college graduates' transition from school to work.

CONTACT
Human Resource Develop.
Div., Depart. of Industry
P.O. Box 2000
Charlottetown, P.E.I.
CIA 7N8
TEL: (902) 892-5445

Eligibility - Eligible employers are existing and new private sector employers who have or can obtain a Revenue Canada Taxation employer number and if applicable, Worker's Compensation coverage. However, municipalities, non-profit organizations and provincial or federal government operations are not eligible.

4.3 NORTHWEST TERRITORIES

4.3.1 Business Loans and Guarantees Fund

To provide loans and loan guarantees to business enterprises in the NWT where the required credit or financial assistance is not available from other sources on reasonable terms and conditions.

CONTACT
Secretary Small Bus.
Loans & Guarantees Fund
Department of Economic
Development and Tourism
Yellowknife, N.W.T.

Eligibility - New or existing businesses in the NWT whose gross revenues do not exceed $1 million per year.

4.3.2 Special Agricultural and Rural Development Agreement

This joint federal-territorial program can provide financial contributions and other assistance to projects which create new jobs, increase income and improve living conditions of residents of the Northwest Territories, particularly those of Indian or Inuit ancestry. Types of eligible projects include commercial businesses, resource harvesting, training and special measures needed to help people take advantage of job opportunities. For commercial projects contributions of up to 50% of the costs may be provided.
Eligibility - Projects which employ individuals of Indian or Inuit ancestry.
CONTACT: Co-Secretary, Department of Economic Development and Tourism
Yellowknife, N.W.T., XIA 2L9

4.3.3 Venture Capital Program

The NWT Venture Capital program provides 30% capital grants for qualifying investments in specific communities within the Northwest Territories. Investments must be made in eligible businesses located in the smaller communities.

Eligibility - Venture capital companies which invest in at least two NWT business enterprises excluding those involved in banking, finance or oil and gas exploration.

CONTACT: Chief, Business Development, Division, Department of Economic, Development and Tourism, Yellowknife, NWT.

4.4 NOVA SCOTIA

4.4.1 Black Business Opportunity Program

Provides financial aid to black people living in Nova Scotia who own or operate businesses not eligible for grant funding under other government programs.

CONTACT
Business & Technical
Services Division
Regional Office Branch
TEL: (902) 424-4243

Eligibility - Black people who are establishing, expanding, or modernizing any commercial undertaking in primary resources, processing, manufacturing, or the provision of services.

4.4.2 Consulting Assistance Program (CAP)

Helps small business benefit from professional advice, i.e. management consultants, accountants and experienced business people.

CONTACT
Business & Technical
Service Division
Regional Offices Branch
TEL: (902) 424-4243

Eligibility - Any business operator faced with a difficult situation that may be eliminated by using a competent advisor.

4.4.3 Program for the Disabled

Encourage the public and private sectors to establish employment opportunities for the disabled.

CONTACT
Employment Opport. Branch
TEL: (902) 424-2720

Eligibility - Available to provincial and municipal governments, non-profit organizations, and to the private sector. Positions applied for must be incremental and demonstrate the potential for permanent employment following completion of the 25-week period.

4.4.4 Disabled Enterpreneurs Assistance Program

Provides assistance to persons with disabilities for the establishment, expansion and modernization of business operations in Nova Scotia.

CONTACT
Business & Technical
Services Division
Regional Offices Branch
TEL: (902) 424-4243

Eligibility - Any commercial undertaking engaged in processing, manufacturing and service industry. Any business operation owned and operated by a disabled person in Nova Scotia, which provides direct employment opportunities.

4.4.5 Industrial Commission Support Program

Initiated to encourage local participation in the industrial and commercial develop. process. It does this through sharing in the operational and promotional cost of provincially incorporated industrial commissions in need of financial assistance.

CONTACT
Business & Technical
Services Division
Regional Offices Branch
TEL: (902) 424-4243

4.4.6 Industrial Estates Limited

A Nova Scotia crown corporation created to support the establishment and expansion of manufacturing industries throughout the province. The minimum loan financing available under this program is $250,000.

CONTACT
Industrial Estates Limited
World Trade & Conven. Centre
1800 Argyle Street, Halifax
Nova Scotia, B3J 1M5
TEL: (902) 425-6331

4.4.7 Industrial Incubation Program

To encourage the start-up of new manufacturing and processing enterprises in Nova Scotia, IEL has constructed a number of multi-tenant industrial malls throughout Nova Scotia.

CONTACT
Industrial Estates Limited
World Trade & Conven. Centre
1800 Argyle Street
Halifax, Nova Scotia
TEL: (902) 425-6331

Eligibility - Manufacturers of products not already made in N.S.

- introduce new technology to manufacture products already being made in N.S.
- expand their enterprise from "cottage" status to commercial production.
- establish any potentially viable business in the secondary sector.

4.4.8 Industrial Loan Progaram

Loans are available to finance fixed assets for processing businesses, fish plants, lobster pounds, saw and planing mills, and other industries related to the natural resource sector of the economy.

CONTACT
Nova Scotia Resource
Development Branch
TEL: (902) 424-5670

4.4.9 Industrial Mall Municipal Tax Rebate Program

Available to tenants of incubator malls owned by the Nova Scotia Department of Development, Industrial Estates Limited and municipal development agencies in the province. Provides tax rebates to qualified mall tenants.

CONTACT
Business & Technical
Services Division
Regional Offices Br.
TEL: (902) 424-4243

4.4.10 Mainstreet Program

Aimed at helping the downtown areas of Nova Scotia communities continue to be the centre of economic and social activities.

CONTACT
Employment Opportunities
Br., TEL: (902) 424-2720

Eligibility - A community must have a Business Improvement District Committee (Commission) and make appropriate application to the program by the set deadline.

4.4.11 Ocean Industries Innovation Centre

General Development Agreement to help small businesses establish or expand in innovative directions that relates to ocean industries other than mineral exploration/extraction, fishing, primary fish processing and boat/ship building.

Eligibility - Any enterpreneur or small manager with an innovative product or service that relates to ocean industries may apply for assistance in any area other than capital costs or equity. Level of financing is determined according to the nature of the project but will rarely be more than 75%.
CONTACT: Ocean Industries Innovation Centre, TEL: (902) 414-6764.

4.4.12 Municipal Taxation Assistance Program

New or expanding ocean industry firms may be reimbursed for municipal taxes paid during the first four years of operation as follows:
- first two years — 75% of municipal taxes paid;
- third year -- 50% of municipal taxes paid;
- fourth year — 25% of municipal taxes paid.

CONTACT: Market Development Centre, TEL: (902) 424-8060

4.4.13 Product Development Management Program (PDMP)

Funded jointly by the province and the federal government this program is designed to provide broad support for business management development within essential phases of the product development cycle: research and development marketing, engineering, applied technology, design, sales promotion and distribution.
CONTACT: Market Development Centre, TEL: (902) 424-8060

4.4.14 Rural Industry Program (RIP)

A grant incentive program which assists the development of industry in rural Nova Scotia. Eligibility - Individual companies or cooperatives operating in Nova Scotia whose business activities will provide employment opportunities for rural Nova Scotians. Businesses must be involved in processing, manufacturing, or a selected service industry.
CONTACT: Business & Technical Services Division, Regional Offices Branch, TEL: (902) 424-4243

4.4.15 Small Business Development Corporation (SBDC)

Financing available to small enterprises wishing to start up, expand or modernize.
Eligibility - Any proprietorship, partnership cooperative, or corporation with:
- less than $2 million annual sales;
- fewer than 50 employees;
- requiring more than $5,000 but less than $250,000.

CONTACT: Small Business Development Corporation, TEL: (902) 424-4920

4.4.16 Task Force Industry

Stimulate the creation of new incremental jobs within the private sector through immediate wage assistance to businesses able and willing to expand their workforce.

Eligibility - Manufacturers, processors, and selected services. For manufacturers and processors, any new meaningful position added to the normal work force is eligible for assistance. Within the service industry, only skill related jobs are eligible for assistance.
CONTACT: Employment Oppportunities Branch, TELEPHONE: (902) 424-2720

4.4.17 Tourism Industry Loan Program

Loans are available to finance new construction or expansion of existing facilities based on the fixed assets of motels, hotels, campsites, restaurants, and certain recreational facilities related to tourism.
CONTACT: Nova Scotia Resource Development Board, TEL: (902) 424-5670

4.4.18 Trade Expansion Program (TEP)

Encourage Nova Scotia manufacturers to seek and realize national and international business opportunities not eligible for assistance under federal marketing programs.
Eligibility - The applicant must be a Nova Scotia manufacturer, processor, or selected service industry. The project is likely to bring new business or expose the Nova Scotia firm to new techniques in marketing, technology or design.
CONTACT: Market Development Centre, TEL: (902) 424-8060

4.4.19 Venture Capital Corporation

Ensures the availability of risk capital through the Province by providing financing incentives to venture capital corporations that provide risk capital and management assistance to small businesses.
Eligibility - In order to form a venture corporation 52 percent of the major shareholders must be Nova Scotian residents Investors must form a Venture Capital Corporation (VCC) with paid-in equity between $25,000 and $5,000,000. At least one shareholder (or group of affiliated shareholders) must own 30 percent of the Venture Capital Corporation shares of $150,000 equity.
CONTACT: Venture Corporation Board, TEL: (902) 424-4087

4.4.20 Women's Entrepreneurial Development Program

This program is a pilot project designed to provide an opportunity for women in business to further develop their entrepreneurial and technical skills in the areas of planning, marketing and operational aspects of business.
Eligibility - Available to any women who is involved in a new or existing small business in Nova Scotia where she: 1) actively participates in the on-going management and decision making; and 2) holds a significant equity position.
CONTACT: Business & Technical Services Division, Regional Offices Branch, TEL: (902) 424-4243

4.4.21 Youth Entrepreneurial Skills Program (YES)

Provides start-up money under the Youth Entrepreneurial Skills Program, which is designed to create new businesses in Nova Scotia operated and owned by youth.
Eligibility - Applicants must be between the ages of 16 and 24. Proposed projects must be new businesses to be located in Nova Scotia and expected to provide either a marketable product or service.
CONTACT: Employment Opportunities Branch, TEL: (902) 424-2720

4.5 MANITOBA

4.5.1 Development Agreement Program

Designed to promote significant industrial development projects in Manitoba. The program provides financial and other types of assistance to firms in the form of loans, loan guarantees, equity investment, training cost assistance, industrial development hydro-electric rate grants during the start-up period, etc. In addition, the Branch will work with other departments to provide training support, such as the development of special courses/programs, or other kinds of support which may be needed.

Eligibility - Manufacturing or processing firms - emphasis on new firms investing in the Province.

CONTACT: Industry Branch, Manitoba Industry Trade & Technology, 7th Floor, 155 Carlton Street Winnipeg, Manitoba, R3C 3H8,
TEL: (204) 945-5753.

4.5.2 Feasibility Study Assistance

On a short-shared basis this program will provide funds to offset the costs of feasibility studies which may include restructuring proposals, market research, financial analysis, location assessment, engineering support or product development. Cost-sharing may consist of: fees for external consultants, technical research and support staff, etc.

Eligibility - Major Manitoba companies or out-of-province investors considering business expansion in the Province.

CONTACT: SAME ADDRESS - TEL: (204) 945-2470

4.5.3 Locational Assistance

Industry Branch staff provide professional advice and direction in selecting appropriate industrial sites, locating commercial properties and determining service requirements. Comprehensive information searches can be conducted to examine comparative location factors such as utility rates, freight rates, taxation, building codes, sourcing of funds from federal, provincial, municipal or joint sources, etc.

CONTACT: SAME ADDRESS - TEL: (204) 945-2470

4.5.4 Entrepreneurial Investment and Immigration Program

To promote and stimulate increased foreign investment opportunities in Manitoba the program reviews bona fide applications for entrepreneurial immigration to Manitoba; advises on industrial development investment proposals; identifies export sales opportunities for Manitoba products and services in foreign markets; and maintains a representative office in Hong Kong to serve Manitoba's investment and trade interests. CONTACT: TEL: (204) 945-2435

4.5.5 Manitoba Health Care Initiative

The program's objective is to develop export products in the Health Care Sector and to replace imports. A number of financial and other forms of assistance are available to support research and development and new project start-up.

Eligibility - Companies intent on developing and commercializing products in the Health Care Sector.

CONTACT
Health Industry Devel.
Initiative, Manitoba Ind.
Trade & Technology
Suite C, Main Floor
175 Carlton Street
Winnipeg, Manitoba, R3C 3H9
TEL: (204) 945-7492

4.5.6 Technology Commercialization Program

This program assists new and established businesses to adapt product or process technologies. The three elements of the program are:

- New Business assistance, which provides office and manufacturing space for entrepreneurs with promising innovative ventures;
- Financial support to assist established, promising businesses at the crucial "seed funding" stage.
- Assistance to industry to adapt technology from provincial, federal, university and private laboratories.

Eligibility - Entrepreneurs and companies intent on developing technology for commercial benefit.

Technology Commercial-
ization Program
Manitoba Industry, Trade
& Technology
9-1329 Niakwa Road
Winnipeg, Manitoba, R2J 3T4
TEL: (204) 945-8741

4.5.7 Strategic Research Support Program

Provides grants and research contracts in the following broad technological areas: manufacturing processes and materials technology; resources/energy technology; electronic information/communication technology, and; food production and processing technology.

Eligibility - Grants - Researchers/academic staff associated with universities or industry. Contracts - organizations undertaking research and development activities.

CONTACT
Strategic Research
Support Program
Manitoba Industry
Trade & Technology
214 - 155 Carlton Street
Winnipeg, Man., R3C 3H8
TEL: (204) 945-4820

4.5.8 Trade Assistance Program

Designed to assist Manitoba exporters, this program provides cost-sharing assistance to firms participating in trade shows outside the Province. The program also supports incoming visits to buyers, agents and distributors. Complements federal export assistance programs.

Eligibility - Manitoba companies.

CONTACT
Trade Branch
Manitoba Industry,
Trade & Technology
5th Floor
155 Carlton Street
Winnipeg, Man., R3C 3H8
TELEPHONE: (204) 945-2466

4.5.9 Export Consulting Assistance

Trade Branch officers provide extensive consulting assistance to Manitoba firms, including export market identification, export planning, pricing, tariffs, shipping, etc.

CONTACT
Trade Branch, Manitoba
Industry, Trade & Tech.
5th Floor, 155 Carlton St.
Winnipeg, Man., R3C 3H8
TELEPHONE: (204) 945-2466

4.5.10 Infotech

This program addresses three areas where the use of information technologies is increasing rapidly: in schools, in offices, and in public access to information.

This program supports the development of a software and educational courseware industry in Manitoba and provides support to approved technology pilots in the markets referenced above.

CONTACT
Infotech Resources Centre
1970 Ness Avenue
Winnipeg, Man., R3J 0Y9

4.5.11 Industrial Technology Centre

The Industrial Technology Centre provides business with access to a wide range of facilities, equipment and specialized technical services. The Centre has skills in biotechnology, chemical engineering, computer-aided engineering, electrical and electronics engineering, mechanical engineering and metallurgy and material science.

CONTACT: Industrial Technology Centre, 1349 Niakwa Road,
Winnipeg, Manitoba, R2J 3T4, TEL: (204) 945-6000

4.5.12 Venture Capital Program

This program is designed to stimulate the flow of new equity capital and managerial expertise to Manitoba small businesses. The Province and private investors establish small, independently owned and operated venture capital companies, the Province providing 35% of the capital, the private investor 65%. This in turn is invested in the equity of Manitoba companies.

Eligibility - Small Manitoba businesses with less than 150 employees and at least 75% of wages and salaries paid toward Manitoba operation. Applies to select business sectors.

CONTACT: Department of Small Business Development, 501-155 Carlton Street
Winnipeg, Manitoba, R3C 3H8

4.5.13 Feasibility Assistance for Small Manufacturers

Designed to encourage the establishment of well-planned new firms and the growth of existing companies through assistance in securing private consulting services. The program provides cost-shared assistance up to 50% of costs obtained from private consulting services.

Eligibility - Small Manitoba manufacturing and processing firms.

CONTACT: Department of Small Business Development,
501 - 155 Carlton Street, Winnipeg, Manitoba, R3C 3H8,
TEL: (204) 945-2019

4.5.14 Design Assistance for Small Projects

Developed to assist Manitoba companies to obtain qualified design services to improve products, packaging and graphic design. Cost-shared program which covers up to 50% of design costs up to a maximum of $1,000.

Eligibility - Manitoba manufacturers and processors.

CONTACT
Manitoba Design Inst.
1329 Niakwa Road
Winnipeg, Man.
R2J 3T4
TEL: (204) 945-2468

4.5.15 Core Area Small Business Development Assistance Program

Designed to assist the establishment and expansion and upgrading of small business within Winnipeg's Core Area. Cost-shared grants up to $2,000 covering 50% of the cost of private consulting fees. Site incentive grants up to 50% of eligible costs to a maximum of $25,000.

Eligibility - Small businesses within the Core Area.

CONTACT
Small Business
Assistance Program
Winnipeg Core Area
Initiative
120 King St.
Winnipeg, Man. R3B 1H9
TEL: (204) 942-1631

4.5.16 Counselling Assistance to Small Enterprises

The Province assists rural clients of the program by covering 50% of the cost of counselling fees.

Eligibility - Any proprietorship, partnership or limited company with no more than 75 employees operating in rural Manitoba.

CONTACT
Winnipeg Business
Development Centre
1329 Niakwa Road
Winnipeg, Man. R2J 3T4
TEL: (204) 945-7628

4.5.17 Consulting Assistance

The Department offers a variety of programs designed to provide information and consulting assistance to small and medium size businesses.

Eligibility - Any Manitoba manufacturing, service, retail or tourism business that employs less than 75 employees and generates less than $3 million in annual sales.

CONTACT
Winnipeg Business
Development Centre
1329 Niakwa Road
Winnipeg, Man. R2J 3T4
TEL: (204) 945-7628

4.5.18 Manitoba Graduates in Business

This program provides wage assistance to businesses hiring 1984 and 1985 graduates Support of 60% is provided for the first half of the approved program period and 40% for the second half. Maximum support period is 52 weeks.

Eligibility - Registered businesses.

CONTACT
Employment Develop.
and Youth Services
Employ. Services and
Economic Security
401 York Avenue
Winnipeg, Man. R3L 0P8
TEL: (204) 945-3802

4.5.19 Manitoba jobs in Training

Wage and on-the-job training assistance to employees. 50% of employee wage up to a maximum of $4.00/hr. for up to 30 weeks, for registered businesses.

Eligibility - Registered businesses and non-profit organizations, and larger institutional organizations.

CONTACT
Manitoba Jobs and
Training Program
Employment Services
& Economic Security
401 York Avenue
Winnipeg, Man. R3C 0P8
TEL: (204) 945-6256

4.5.20 Investment Tax Credit for Manufacturing

For use by corporations which acquire qualified machinery or equipment or make other qualified expenditures for the purpose of manufacturing or processing goods for sale or lease. A 6% credit on the first $15,000 of Manitoba income tax liability and one-half of any excess over that amount.

Eligibility - Individual manufacturing or processing proprietorships or corporations.

CONTACT
Federal/Provincial
Relations, Department
of Finance
Legislative Building
450 Broadway Avenue
Winnipeg, Man. R3C 0V8
TEL: (204) 945-3757

4.6 YUKON

4.6.1 Northern Exploration Facilities Program (NEFP)

Financial assistance for the construction of access roads to airstrips, helicopter landing pads, small boat docks and seaplane bases, in areas where alternative existing routes are not available or practical.

Eligibility - Persons or companies requesting assistance must be carrying out a bona fide resource development project (in such areas as mining, forestry, agriculture and tourism), or small scale resource production in the Yukon, or show reasonable evidence that the area in question has a resource potential The facility must be available for public use.

CONTACT: Manager, Highway Engineering, Department of Community and Transportation Services.

4.6.2 Yukon Energy Alternative Program (YEAP)

To provide funding on cost share basis to commercial businesses and other large energy consumers to examine the feasibility of alternative fuel sources of energy management schedules.

Eligibility - Determined by an advisory committee. All projects require the approval of the Minister of the Department of Economic Development.

CONTACT: Energy Program Coordinator, Department of Economic Development Mines and Small Businesses.

4.6.3 Special Arda

A joint Federal-Territorial Government program to improve income and employment opportunities for Yukoners of Native ancestry. Assistance is offered in the following areas: primary producing activities, training, commercial undertakings.

CONTACT
Director: Small
Business Branch
Department of Economic
Development: Mines &
Small Businesses

Eligibility - Any Yukon individual, co-operative, community group, society, organization, band or corporation.

4.6.4 Special Arda - I

Financial assistance to projects which improve incomes from the use of natural resources (such as wildlife or fish, or the development of land for agriculture).

Eligibility - Groups and individuals residing outside Whitehorse. Applicants must depend on resource harvesting or agriculture for their main source of livelihood.

CONTACT
Director - Small
Business Branch
Dept. of Economic
Development: Mines &
Small Businesses

4.6.5 Special Arda - II - Training

To provide funding for projects which help people of native ancestry qualify for technical and professional jobs. The trainees must be sponsored by community groups or organizations.

Eligibility - Eligibility costs include training costs for training plus living travel, and relocation assistance. Funding is available only to organizations and groups. However, an individual may get relocation assistance for a job that has been offered to him/her.

CONTACT: Director - Small Business Branch, Department of Economic Development Mines and Small Businesses

4.6.6 Yukon Business Loans Program

This is a low-interest loan program available to entrepreneurs who wish to try new ventures as well as to existing businesses who wish to expand their operations.

Eligibility: The business must have gross revenue of less than $2 million, fewer than 100 employees; use the assistance solely for capital costs; and not have made any financial or contractual commitments prior to submitting a preliminary application. The project must be of a commercial or industrial nature and must operate in the Yukon.

CONTACT: Director - Small Business Branch Department of Economic Development Mines and Small Businesses

4.7 NEW BRUNSWICK

4.7.1 Industrial Loan Program

Provides financial assistance in the form of direct loans or loan guarantees to manufacturers or processors wishing to locate, or to expand or modernize existing facilities in New Brunswick

CONTACT
Man., Industrial Prom.
Department of Commerce
and Development
TEL: (506) 453-3981

4.7.2 Equity Participation Program

Through its crown corporation, Provincial Holdings Ltd. the province offers equity participation to manufacturing industries wishing to establish production facilities in New Brunswick that will make a significant contribution to the economic base of the province.

CONTACT
Man., Industrial Prom.
Department of Commerce
and Development
TEL: (506) 453-3981

4.7.3 Venture Capital Support Program

This program offers interest free loans made by Provincial Holdings Ltd. to eligible venture capital firms which propose to invest in eligible operating companies. This investment is to provide funds for the establishment or expansion, or for working capital requirements of small to medium-sized New Brunswick companies.

Man. Industrial Prom.
Department of Commerce
and Development
TEL: (506) 453-3981

4.7.4 Small Industry Financial Assistance Program

Provides grants up to 75,000 dollars to small industries establishing a new business or modernizing and/or expanding an existing industry. To be eligible, estimated capital cost of project must not exceed 150,000 dollars: project must involve activities as outlined in an approved eligibility list: and if already in operation, average sales for the two most recent years of operation shall not exceed 1.5 million dollars per year.

CONTACT: Director Small Industry Development, Department of Commerce and Development, TEL: (506) 453-3890.

4.8 BRITISH COLUMBIA

4.8.1 Small Business Venture Capital Programs

To encourage increased flows of equity capital to small businesses, by providing investors with a 30% tax credit which can be used to offset British Columbia income tax.

Eligibility - Investors supply funds to Venture Capital Corporations which in turn provide equity capital to small businesses in manufacturing/processing, research and development, certain tourism activities, and aquaculture. Corporations are established under the guidelines of the "Small Business Venture Capital Act" and must comply with all registration requirements.

CONTACT: Ministry of International Trade and Investment,
Suite 315 Robson Square, 800 Hornby St., Vancouver, British Columbia.

4.8.2 Small Manufacturers Incentive Program

To encourage the establishment, modernization or expansion of companies in manufacturing, processing and advanced technology industries through the provision of interest free loans for a term of 3 years.

Eligibility - Small Projects, where eligible, costs do not exceed $250,000.

CONTACT
Ministry of Internat.
Trade and Investment
Suite 315, Robson Square
Vancouver, B.C.
V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.3 Industrial Development Assistance Program

To encourage the establishment, modernization or expansion of companies in manufacturing processing and advanced technology industries through the provision of loans of up to one-third of eligible costs at half the normal prime rate for 3 years with the first six months interest free.

Eligibility: Projects with a maximum project size of $2 million.

CONTACT
Ministry of Internat.
Trade and Investment
Suite 315, Robson Square
800 Hornby St.
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.4 Aquaculture Incentive Program

To encourage the establishment and expansion of companies involved in intensive cultivation & harvesting of finfish, shellfish & aquatic plants through interest-free loans for a 5-year term covering 50% of eligible costs to a maximum of $100,000.

Eligibility - Eligible costs must not exceed $300,000. Max. company size, 75 employees & $2 million in total assets.

CONTACT
Ministry of Internat.
Trade and Investment
Suite 315, Robson Square
800 Hornby St.
Vancouver, B.C. V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.5 Resource Industries Modernization Program

To ensure the resource sector maintains and improves its effectiveness in the competitive international market place by assisting existing firms to acquire, adopt and apply new or improved technology. Assistance is in the form of repayable contributions, to a maximum of 30% of eligible project costs. Terms and conditions will reflect the needs of the project.

CONTACT
Ministry of Internat.
Trade and Investment
Suite 315, Robson Square
800 Hornby St.
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

Eligibility - Companies engaged in manufacturing or processing operations based directly on a primary resource. Eligible Project costs must be less than $2 million.

4.8.6 Resource Industries Value-Added Program

To expand the range of products and improve utilization of province's natural resources by assisting new/existing companies to establish or expand operations that will produce specialty products based on the province's natural resources, or utilize under-exploited resources. Assistance is in the form of low interest loans, up to a maximum of 50% of eligible projects costs for the acquisition of plant or equipment. Loans will have flexible terms and conditions.

Eligibility - For projects with over $2 million in capital costs.

CONTACT
Ministry of Internat.
Trade and Investment
Suite 315, Robson Square
800 Hornby St.,
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.7 Industrial Diversification Program

To encourage growth in the manufacturing industries outside of the traditional resource sector which can accelerate technological advancement, create long-term employment and aid in the diversification of B.C.'s industrial base. Assistance is available in two forms: - repayable contributions from the federal government to a maximum of 30% of capital costs.

- Loans from the Province up to a maximum of 50% of capital costs.

Eligibility - Companies engaged in the manufacturing, processing and advanced technology sectors. Target sectors are those involving advanced technology such as electronics and other secondary and tertiary manufacturing and processing sectors which will aid industrial diversification. Eligible project costs must not be less than $2 million.

CONTACT
Ministry of International
Trade and Investment
Suite 315, Robson Square
800 Hornby St.,
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.8 Low Interest Loan Assistance Program

Provides low interest loans to assist manufacturing/processing and related service industries purchase fixed assets to establish or upgrade their operations. The low interest loans are for one-third of capital costs, to a maximum of $200,000. Loan terms are for 3 years, the first 6 months are interest free and amortization rates are based on asset life.

Eligibility - Maximum project size is $900,000.

CONTACT
Ministry of International
Trade and Investment
Suite 315, Robson Square
800 Hornby St.,
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.9 Discovery Foundation

To promote new areas of advanced technology and the establishment and growth of scientific and technological industries, skills and expertise. The B.C. Innovation office provides advisory, counselling and referral services to innovators. The Discovery Enterprise Program provides seed capital for selected high technology enterprises.

CONTACT
Ministry of International
Trade and Investment
Suite 315, Robson Square
800 Hornby St.,
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.10 Energy Incentive Program

To encourage energy-intensive industries to make business investments in British Columbia by offering surplus energy at discount rates. Major discounts on power will be available for periods of up to 5 years or more.

Eligibility - The energy incentive pricing discounts must result in incremental economic activity. For large consumers that receive their power at transmission voltage of 60,000 volts or higher.

CONTACT

Ministry of International
Trade and Investment
Suite 315, Robson Square
800 Hornby Street
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.11 Partnerships in Enterprise

The Provincial-Municipal Partnership Act has enabled the Province to join with municipalities offering major economic incentives to businesses. Municipalities will be able to reduce municipal property taxes 50 to 100% on new improvements on industrial property. The province will also reduce school taxes. For substantial new investment, companies can be provided with relief from provincial corporate income tax for 5 years.

Eligibility - Most of the incentives are targeted towards new or expanding businesses.

CONTACT

Ministry of International
Trade and Investment
Suite 315, Robson Square
800 Hornby Street
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.12 Tourism Product Development Program

To further enhance the quality and variety of internationally competitive destination facilities of British Columbia.

Eligibility - Existing destination resorts or areas, new proposed accommodations or facilities that form part of a destination or resort area.

CONTACT

Ministry of International
Trade and Investment
Suite 315, Robson Square
800 Hornby St.,
Vancouver, B.C., V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.13 Oil Royalty Holiday

To increase petroleum exploration and development in B.C. Exploratory wells qualify for a 3-year holiday from B.C. royalty. Other types of wells enjoy a 2-year royalty free period.

Eligibility - Applies to all oil wells drilled between June 30/85 & June 30/89.

CONTACT

Ministry of International
Trade and Investment
Suite 315, Robsons Square
800 Hornby St., .
Vancouver, B.C, V6Z 2C5
TEL: (604) 660-4567
TELEX: 04-55459

4.8.14 Mineral Development Agreement

To facilitate mine development in B.C. Funds are available for (a) cost sharing on a 50/50 basis of infrastructure planning for mining development (b) loan assistance for capital costs (c) market, technical and feasibility studies for innovative projects.

CONTACT

Manager, Mineral Develop.
Agreement
Ministry, of Energy, Mines
& Petroleum Resources
Parliament Buildings
Victoria B.C., V8V 1X4
TEL: (604) 387-5975

4.9 QUEBEC

4.9.1 Manufacturing Investment Assistance Program

Financial assistance to promote investments in the province of Québec by manufacturers involved in projects with a significant technological content.

Eligibility - Applicant must invest a min. of $50,000 in machinery and equipment; a project for expansion or modernization must represent at least 10% of the value of the fixed assets of the enterprise in Québec at the time of the application; the technology to be used in the project must be modern and result in productivity that is above average for the manufacturing sector or its sub-group; the goods to be manufactured must offer marketing prospects outside the province of Quebec. Also, the prospective markets should have a growth rate that is above average for the manufacturing sector, or be sizeable and inadequately served by manufacturing companies in the provice of Québec. The project should have positive effects for the province of Quebec such as the creation of specialized jobs or the development of research and technological innovation; the company must not make any contractual commitments concerning the eligible expenses before its application has been received by SDI. Furthermore, no work related to the project may commence prior to receiving an offer for financial assistance from SDI.

CONTACT

Société de Developement Industriel ("SDI")
Offices are located in the following cities:

Montreal:
Tour de la Bourse
Case postale 276
Bureau 4205
Montreal H4Z 1E8
(514) 873-4375

Quebec City:
1126, chemin St. Louis
Bureau 700
Quebec G1S 1E5
(418) 643-5172

Sherbrooke:
740, rue Galt ouest
Bureau 303
Sherbrooke J1H 1Z3
(819) 565-1224

Rimouski:
337, rue Moreault
Rimouski G5L 1P4
(418) 722-3582

Victoriaville:
Edifice Provincial
62, rue St. Jean-Baptiste
Victoriaville G6P 4E3
(819) 752-4521-22

Jonquière:
MIC - Centre administratif
4e étage, 3950 boul. Harvey
Jonquière G7X 8L6
(418) 547-9771

Trois-Rivières
100, rue Laviolette, 3e etage
Trois-Rivières G9A 5S9
(819) 379-3012

4.9.2 Business Financing Program

A program of financial assistance in the form of loan guarantees and protection against interest rate increases.

Eligibility - This program applies to loans not exceeding $10 million incurred for the purpose of making new capital investments or increasing working capital. It may not be spent for refinancing existing debts including bank line of credit. It is made available to companies which can demonstrate that this form of assistance is required.

CONTACT: Société de Developement Industriel ("SDI")

4.9.3 Innovation and Research Activities Assistance Program (Programme d'aide aux activités de recherche et d'innovation)

This program is intended to help finance services or processes or significant improvements thereof. Financial assistance is granted in the form of an interest free loan throughout the development period and is repayable by royalties. Should the project be totally or partially unsuccessful, part of the loan will be forgiven. The amount of the loan may not exceed 90% or 80% of the eligible expenses, after deducting any federal subsidies, depending if the level of sales are greater than $10 million. The maximum amount of the loan is $1 million per project.

CONTACT: Société de Developement industriel du Québec (SDI)

4.9.4 Research Laboratories Investment Assistance Program (Programme d'aide à l'investissement pour les laboratoires de reserche)

This program is intended to provide financial assistance for profit oriented manufacturing businesses to set up applied research laboratories.

Eligibility - The project must involve an investment in machinery and equipment of at least $100,000 or of a value in excess of 10% of the value of the applicant's fixed assets in Quebec.

CONTACT: Société de Developement industriel du Québec (SDI)

4.9.5 Export Promotion Assistance Program

The aim of this cost sharing program is to assist Quebec-based businesses in exporting to markets outside of Quebec. It comprises:
assistance in investigating and developing new markets and for negotiating license agreement projects;
assistance for participation in commercial exhibitions outside Québec
assistance in implementing an export marketing strategy.

Programme d'aide à la prom. des exportations ("APEX")
Ministry of External Trade
Ministere du Commerce ext.
770, rue Sherbrooke ouest
7e etage
Montreal, Quebec, H3A 1G1
TEL: (514) 873-5273

Eligibility - Amongst the eligible criteria, the project ought to increase the exports of products having a Québec content of at least 60%.

4.9.6 Export Assistance Program (Programme d'aide à l'exportation)

This program is designed to provide financial assistance for firms wishing to export goods or services produced in Quebec. It includes: a) Assistance for the identification and establishment in new market: the SDI can advance funds in the form of a repayable loan over several years to defray up to 80% of the expenses incurred to penetrate news markets outside Québec. b) Export financing, in the form of a loan at market rates or a loan guarantee for those firms which require a complement to financing that is already available.

CONTACT: Société de Developement industriel du Québec (SDI).

4.9.7 Canada - Quebec Subsidiary Agreement on Industrial Development

On January 23, 1985, a new subsidiary Canada-Québec agreement was signed concerning the establishment of a special funding of $300 million to promote private projects of a minimum of $10 million in capital costs, mainly in high technology industries. The agreement is for a five year period ending in March 31, 1990 with both governments (Canada and Québec) equally sharing in the financing assistance being granted. The main elements comprise: feasibility studies, where the financial assistance can extend up to 75% of study costs. the establishment of fabricating facilities (new, expansion or modernization), industrial laboratory, applied industrial research center, where financial assistance can be in the form of grants, guaranteed loans, takeover of interest and any other forms in response to specific needs. The maximum sharing ratio has not been determined at this moment.

CONTACT: Minister Industry and Commerce, Investment Promotion Service, 770, Sherbrooke West, 8 Floor Montreal, Quebec, H3A 1G1, TELEPHONE: (514) 873-3530 TELEX: 055-61760

4.10 ALBERTA

4.10.1 Market Development Assistance Program

To assist Alberta businesses by sharing some of the financial risks in entering new markets and for exporting their goods and services.

CONTACT

Alberta Economic Development
International Trade Branch
11th Floor, Sterling Place
9940 - 106 Street
Edmonton, Alberta
T5K 2P6 (403) 427-4809

4.10.2 Export Services Support Program

To encourage Alberta businesses to pursue specific projects outside of Alberta by financially assisting feasibility and other studies that could lead to firm contracts for Alberta goods and services.

CONTACT

Alberta Economic Development
Special Projects
12th Floor, Sterling Place
9940 - 106 Street
Edmonton, Alberta
T5K 2P6 (403) 427-4809

4.10.3 Alberta Loan Guarantee Program

To provide support to Alberta businesses by means of government guarantees for loans made by financial institutions to enable them to be more competitive in obtaining export sales.

CONTACT

Alberta Economic Development
Special Projects
12th Floor, Sterling Place
9940 - 106 Street
Edmonton, Alberta
T5K 2P6 (403) 427-3300

4.10.4 Gas Royalty Incentives Deep Gas Royalty Holiday

The Deep Gas Royalty Holiday program, is designed to reward the successful completion and production of new wells in gas pools greater than 2500 metres deep.

Eligibility - Eligible wells must be outside pool boundaries known to exist on June 1, 1985 and the producing interval of the well must be deeper than 2500 metres. The value of the royalty holiday is related to the depth of the producing interval below 2500 metres.

CONTACT: J.R. Hierlihy, Incentives, Revenue Operations Branch, Mineral Revenues Division, 9th Floor, 9945-108 Street, Edmonton, Alberta, T5K 2C9 TEL: 427-6583.

4.10.5 Gas Royalty Incentives New Gas Status - Preferred Royalty

New Gas Status is available to operators for selected wells producing from Crown lands upon application to the Incentives Branch.

Eligibility - To be eligible for preferred royalty treatment associated with New Gas Status, the gas must be obtained from a pool which was initially discovered on or after January 1, 1974.

CONTACT: SAME AS 4.10.4.

4.10.6 Gas Royalty Incentives Exploratory Gas Well Incentive

The Exploratory Gas Well Incentives program is designed to provide support to gas exploration by providing a limited royalty for production from successfully completed exploration wells.

Eligibility - Eligible wells must be located at least 4.8 kilometres from other wells that are or were capable of producing or there must be more that 150 metres depth differential between the previously known interval and the new interval. Spudding or deepening must take place during the 3-year period ending June 1, 1988

CONTACT: SAME AS 4.10.4.

4.10.7 Gas Royalty Incentives New Pentanes Plus Status - Preferred Royalty

New Pentanes Plus Status is available to operations for the pentanes plus recovered from natural gas produced from eligible wells upon application to the Incentives Section. New Pentanes Plus is subject to a lower royalty rate than Old Pentanes Plus.

Eligibility - These categories of Pentanes Plus may qualify: a) pentanes plus recovered from raw gas produced from new natural gas pools or from extensions of existing natural gas pools discovered after December 31, 1980, providing that the raw gas contains 0.5 per cent or more pentanes plus by volume; and b) pentanes plus recovered from natural gas produced in associaton with the conventional crude oil qualifying for New Oil Status.

CONTACT: SAME AS 4.10.4.

4.10.8 Petroleum Royalty Incentives Royalty Relieve Section 4.1

The Royalty Relieve Section 4.1 program is designed to assist producers who desire to implement innovative but risky conservation and/or production schemes. The incentive of this program is a prescribed reduced royalty for a specific time period, as determined by the Lieutenant-Governor in Council.

CONTACT: SAME AS 4.10.4.

4.10.9 Petroleum Royalty Incentives Royalty Relief Section 4.2

The Royalty Relief Section 4.2 program is designed to offset the costs and risks associated with energy Resources Conversation Board approved Enhanced Oil Recovery Schemes (tertiary recovery schemes). The benefit of this program is the producer's effective annual royalty rate times allowable scheme costs which are specified by the Province.

CONTACT: SAME AS 4.10.4.

4.10.10 Petroleum Royalty Incentives 5% Oil Royalty Rebates

The 5% Oil Royalty Rebates program is designed to offset the costs of injected substances used in pressure maintenance or Enhanced Oil Recovery schemes. The incentive is that producers who purchase NGL for injection are rebated a maximum of 5% of the royalties payable on the crude oil production from the scheme.

CONTACT: SAME AS 4.10.4.

4.10.11 Petroleum Royalty Incentives Annual Accounting Royalty Averaging

The Annual Accounting Royalty Averaging program is designed to assess royalties in a fair manner on those wells which have production abnormalities (e.g. whether, remote location, harsh terrain conditions). The incentive of this program is that production and royalties are averaged over a 12-month period.

CONTACT: SAME AS 4.10.4.

4.10.12 Petroleum Royalty Incentives New Oil Status

New Oil Status is available to operators for individual crude oil wells upon application to the Incentives Branch. New oil is subject to a lesser royalty rate than oil.

Eligibility - Oil produced from pools discovered after 1974, incremental oil produced from an Enhanced Oil Recovery scheme and oil produced from a pool 3 years or more after production from that pool has ceased are categories qualifying for New Oil Status.

CONTACT: SAME AS 4.10.4.

4.10.13 Petroleum Royalty Inxcentives Crude Oil Royalty Holiday

The Crude Oil Royalty Holiday was implemented during the summer of 1985 as part of the new Incentives and Royalty package.

Eligibility - The holiday is extended to successfully drilled or deepened wells in new conventional pools or extensions of current pools where spudding takes place during the 3-year period ending June 1, 1988.

CONTACT: SAME AS 4.10.4.

4.11 SASKATCHEWAN

4.11.1 Assistance is provided to attract business, assist in the expansion of existing business, and increase the sale of manufactured products, in the form of:

(a) cost shared market and feasibility
Regina, Saskatchewan studies;
(b) marketing assistance for manufacturers;
(c) incentives of up to 25% of eligible capital costs based on $7,500 per job created;
Non-financial assistance is also available.

Development Co-ordinator
Investment Services Branch
Saskatchewan Economic
Development and Trade
2103 - 11th Avenue
S4P 3V7
(306) 787-2232

Eligibility: New or existing Saskatchewan companies or investors.

4.12 NEWFOUNDLAND

4.12.1 Market and Product Development Program (MAPD)

The MAPD program provides marketing and product development assistance in the form of non-repayable grants to companies planning to market goods or services outside province, or to substitute for goods and services being imported into the province. Some of the activities covered are:

- research and development of new products or processes; and
- promotion of new or existing products in new markets.

Government of Newfoundland and Labrador
Department of Development and Tourism
Prospect Devel. Division
P.O. Box 4750
St. John's, Newfoundland
A1C 5T7, (709) 737-2781

Eligibility - The program applies to any business enterprise in Newfoundland and Labrador producing manufactured goods, processed goods, products from natural resources, or to those companies providing a consulting service. The program does not normally apply to service groups, associations or government funded agencies. Companies that receive assistance from other government agencies for the same project are not eligible.

4.12.2 Ocean Industry Development Agreement

The Canada/Newfoundland Ocean Industry Agreement was signed in recognition of the need for a co-operative approach to ocean industry development within the province. Companies and agencies which provide industrial services, research and development enterprises, and businesses involved in technical service, manufacturing, or processing activity in the ocean industry sector within the province may apply for financial support under the agreement. All funding under the Ocean Industry Agreement will be in the form of grants administered through the following programs:

4.12.2.1 Ocean Industry Assistance Program

This program has two major components: ocean industry technological research and development; and the establishment and expansion of manufacturing, processing and servicing activities.

Prospect Development Division
Depart. of Develop. & Tourism
Government of Newfoundland and Labrador (709) 576-2781

Eligibility - The applicant is required to provide a level of equity no less than 20% of the total.

4.12.2.2 Applied Research and Development Program

Designed to provide financial support for establishments engaged in applied research and development, the application and/or transfer of high and medium technologies to the manufacturing, processing or service industries, and to those establishments which manufacture, process, or provide specialized industrial and technical services which form part of the procurement chain to the primary producers in the ocean industry sector. Proposed projects should lead to the creation of commercial enterprises, or the expansion of existing commercial enterprises, with preference given to those projects which provide significant opportunities for the employment of persons with specialized skills or the prospect of acquiring specialized skills.

Eligibility - The applicant is required to provide a level of equity no less than 20% of the total.

4.12.2.3 Establishment and Expansion Program

Focuses primarily on the establishment or expansion of manufacturing, processing and servicing activities. Establishment and expansion projects will be assessed on the degree to which the project-related business is or will be achieved in the ocean industry sector. In the case of a manufacturer or processor, eligible activities include those which manufacture, within the province, products or equipment used primarily in the ocean industry sector. The degree of permanence, the technical sophistication component of a proposed project and the competitive environment are factors which may be considered in the evaluation process. Operations which provide specialized technical expertise or services with the application of medium and high technologies in direct support of the ocean industries sector are also eligible to apply under this program.

Eligibility - The applicant is required to provide a level of equity no less than 20% of the total.

4.12.2.4 Marketing/Product Enhancement Program

Designed to expand the market range, access and penetration of Newfoundland firms in exporting or import replacement activities and to support firm-specific initiatives in the domestic market, concentrating on those firms with unique technologically oriented products or services. The program is aimed at export or import replacement activities. activities may include market testing, product and package design, promotion, advertising displays, slide or video presentations, brochures or other promotional material. assistance may be provided to companies wishing to contract marketing studies with an independent consulting firm on a cost-competitive basis. supports may be given to companies to do, in whole or in part, marketing studies "in-house" or using salaried personnel with a portion of their salary being deemed an eligible cost.

Eligibility - The applicant must satisfactorily demonstrate the value of the activity as one which is incremental to the primary, on-going thrust of the enterprise.

4.12.2.5 Opportunities Identification/Project Enhancement Program

Program provides funding to commercial groups to undertake studies of supplier development activities. Provincial areas of study will include opportunity identification, market potential, commercial feasibility, engineering and technical evaluations and industry adjustment investigations. The innovation and productivity support program provides support to research institutions and firms engaged in industrial research. The acquisition of equipment, materials and specialized expertise by research institutions and firms will be considered, where such projects contribute significantly to the enhancement of downstream technical supports. It is a requirement that such supports be intended to be made readily accessible on a competitive basis to increase the productivity of firms in the ocean industry sector or to expedite the development or commercialization of new products and services.

4.12.3 Retail Sales Tax Exemption Program

Available to small businesses engaged in the purchase of machinery or equipment for use in manufacturing and/or processing opertions.

Eligibility - Small businesses engaged in manufacturing and/or processing operations.

CONTACT
Financial Services Division
Department of Development and Tourism
Government of Newfoundland and Labrador, TEL: 576-5066

4.12.4 Tourism Incentives

Program provides financial incenttives to the private sector for the development expansion and upgrading of attractions, food service and accommodation facilities, in the form of a direct contribution or forgiveable loan.

Eligibility - Applicants must not qualify for assistance under the Federal Industrial and Regional Development Program.

Tourism Division, Depart.
of Develop. and Tourism
Government of Newfoundland
and Labrador
TEL: 576-2806

4.12.5 Marketing

The objective of this program is to coordinate marketing activities in the areas of research promotion, communications and tour development, through the provision of financial contributions.

Eligibility - Private sector applicants with the following types of projects, marketing of facilities funded under the Canada/Newfoundland Tourism Development subsidiary Agreement; cooperative advertising; package tour development; study tours; and, trade show participation.

Tourism Division, Department
of Development and Tourism
Government of Newfoundland
and Labrador
TEL: 576-2806

4.12.6 Assistance to small/medium-sized business to locate in Newfoundland, modernize and/or expand operations in manufacturing, processing, tourism and offshore related services.

Newfoundland & Labrador
Development Corporation
(NLDC) TEL: 753-3560

4.12.7 Venture Capital Program

Designed to encourage private sector participation in providing risk capital and management expertise to eligible businesses within the province by addressing the need for additional equity capital for the start-up of new high risk business ventures as well as the stabilization and expansion of existing businesses. Equally important, it will provide a source of management expertise in areas such as financial management, marketing and productivity enhancement.

CONTACT: Newfoundland & Labrador Development Corporation (NLDC)
TEL: 753-3560

4.12.8 The Retail Sales Tax Act

Provides an exhaustive list of examples and situations wherein companies may be exempt from payment of this tax. Some examples include electricity, gasoline, fuel oil, and gas purchased by a manufacturer or processor for consumption or use directly in manufacturing or processing.

Tax Compliance Division
Department of Finance
TEL: 576-2352

4.12.9 Direct loans and guaranteed loans are available to fishermen for the purchase/construction of new used vessels, purchase of engines/equipment, cost of rebuilding vessels and repairs to vessels.	CONTACT Fisheries Loan Board Depart. of Fisheries. TEL: 576-3692
4.12.10 Secondary Processing Interest Subsidiary To promote establishment and expansion of secondary fish processing facilities.	CONTACT Process. Operat. Div. Depart. of Fisheries TEL: 576-3736
4.12.11 Fishery Marketing Assistance Program (FMAP) To assist fish companies in the development and marketing of their various products.	CONTACT Marketing Serv. Div. Department Fisheries TEL: 576-3439
4.12.12 Low interest loans are available to farmers to cover the purchase cost of buildings, equip. cattle, and in some cases, working capital. Maximum loan $30,000. Maximum term 15 years.	Dept. of Rural Agricu. & Northern Develop. Farm Development Board, TEL: 576-3170
4.12.13 Assistance for the establishment, expansion or modernization of manufacturing or processing operations and for industries utilizing primary resources.	Dept. of Rural Agric. & Northern Develop. Incentive Grants Div. (Federal/Provincial) TEL: 576-3184
4.12.14 Low interest loans for small industry development in natural resources, manufacturing and tourism.	Rural Development Authority TEL: 576-3184

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BUSINESS OPERATIONS

1. CANADIAN CUSTOMS REGULATIONS

On January 1, 1985, Canada adopted the international Customs Valuation System. This was a direct result of Canada signing the Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade, on April 12, 1979, as part of the Tokyo Round of Multilateral Trade Negotiations. The new Customs Valuation Code is intended to provide a fair, uniform and neutral system of valuation which conforms to commercial realities. The determination of the value for duty under the new Customs Valuation Code is based on the price actually paid or payable for the goods, as exported to Canada.

In conjunction with adoption of the new Customs Valuation Code, Canada, on December 1, 1984, proclaimed the Special Import Measures Act which relates to the imposition of anti-dumping and countervailing duties; to amendments to the Currency and Exchange Act, the Customs Tariff and the Export and Import Permits Act; and to the repealing of the Anti-dumping Act.

It appears likely that the Canadian Custom Tariff is moving towards the Harmonized Commodity Description and Coding System. This change is not expected to be effective until early 1988.

1.1 Tariff Structure, Classification and Rates

The Canadian Customs Tariff consists of more than 3,500 tariff items which refer in large part to specific commodities, while some refer to the significant component of the specific commodity. The Custom Tariff classifies the goods and sets out the rate of duty applicable to each item. Classification of goods is influenced by a large number of different factors such as whether the goods are materials, semi-finished or finished, whether they are of a class or kind manufactured in Canada, or whether they are for a particular end use.

The majority of the rates for duty are expressed on an "ad valorem" basis, either as a specific percentage (i.e. 10 percent) or as a specific rate (i.e. 10¢ lb.) There are five different rates of duty: British Preferential, United Kingdom and Ireland, Most Favoured Nation, General Preferential and General. Some countries qualify for more than one rate and in such instances the lowest rate would be applied to the goods. A list of the countries and the corresponding tariff arrangements are set out in Schedule "A".

As a result of the latest round of the General Agreement on Tariffs and Trade (GATT), the rates of tariffs applied to imported goods are being reduced. The following table illustrates, for selected products, the current most-favoured-nation rates and planned reductions to the expiry of the current GATT agreement in December 1987. By then, tariffs on imported manufactured goods from the U.S., for example, will have declined to an average of about 10 percent.

By the same agreement, some 80 percent of Canadian exports to the U.S. will be duty-free by 1987, with an additional 10 percent subject to duties of less than 5 percent.

TABLE 1

MFN TARIFF RATES FOR SELECTED COMMODITIES, 1985 to 1987

Commodity	January 1,1986	January 1,1987
	%	%
Man-made Yarns	10 + 12.8¢/kg	10 + 11¢/kg
Woolen Fabrics	25 + 9.3¢/kg	25
Cotton Fabrics	15.4	15.0
Agricultural Chemicals	free	free
Dyestuffs	free	free
Pigments	12.8	12.5
Steel Structural Shapes	8.2	7.8
Brass Valves	n/a	n/a
Rubber Hose & Tubing	12.4	11.3
Bearings Not Manufactured in Canada	free	free
Bearings Also Made in Canada	9.9	9.2
Hot Water, Steam Heating Equipment	n/a	n/a
Knitted Outerwear	25.4	25.0

Source: Customs & Excise

When the value for duty cannot be determined on the basis of the transaction value, the Customs Act provides for five alternative methods of valuation which are to be applied in sequential order. In sequential order, these methods are:

- the identical goods method;
- the similar goods method;
- the deductive method;
- the computed method; and,
- the residual method.

For further information on the transaction value system, please contact:
Department of National Revenue, Customs and Excise, Customs Programs Branch, International Valuation Directorate, Sir Richard Scott Building, 191 Laurier Avenue, West, Ottawa, Ontario, K1A 0L5. Telephone: (613) 995-2498 (613) 995-2567.

1.2 Anti-Dumping and Countervailing Duties

The Special Import Measures Act provides for the imposition of anti-dumping duties and countervailing duties. Dumping of goods into Canada occurs when the goods are sold to the Canadian importer at a price lower than what the goods are sold for in the country of export, given comparable conditions of sale. The amount of anti-dumping duty levied is an amount equal to the margin of dumping of the imported goods. However, before anti-dumping duties can be levied, the Canadian Import Tribunal, which is a court of record, must find that the dumping of such goods has caused, is or is likely to cause, material injury or retardation to an established industry in Canada.

Countervailing duties, on the other hand, are levied when there is evidence that importation of goods of a class or kind made in Canada are subsidized, and that such importation is causing or threatening to cause material injury to existing Canadian production. Countervailing duties are equal to the amount of the subsidy on the imported goods.

Generally, an anti-dumping or countervailing action will commence through the submission of a complaint to Revenue Canada by the manufacturers significantly affected by the dumped or subsidized importation. Revenue Canada will then conduct an investigation into the matter. If dumping or subsidies are determined, and if there appears to be prima facie evidence of material injury to the Canadian industry, the entire matter is referred to the Canadian Import Tribunal. The Canadian Import Tribunal will conduct an investigation into whether or not the dumped or subsidized goods have caused, are or are likely to cause, material injury to the Canadian industry. During the Tribunal's review, Revenue Canada will collect provisional anti-dumping or countervailing duties. If the Tribunal determines there is injury, then anti-dumping or countervailing duties will be charged on future importation of the offending goods. If the Tribunal finds that there was no material injury, the provisional duty collected will be refunded.

1.3 General Customs Regulations

As a general rule, all goods coming into Canada must be declared at the time of entry, and documentation must be complete and presented at the time of entry. It should be noted that relatively few goods are totally prohibited from entry into Canada.

1.3.1 Prohibited Goods

The following is a list of some of the categories of goods which cannot be imported into Canada:

Offensive weapons
Butter substitutes
Goods produced in whole or in part by prison labour
Non-game birds
White phosphorous matches

Second-hand motor vehicles and airplanes
Smoke screen apparatus for use in motor vehicle
 or water-borne craft
Second-hand mattresses
Goods subject to trade marks or copyright restrictions.

Should an importer contemplate importing these goods, further information should be sought from Canada Customs to determine whether or not there are exceptions within the category.

1.3.2 Controlled Goods

The importation of certain goods must be controlled to ensure that Canada's standards regarding safety, health and environment are maintained. Some examples of such goods are: dairy products, fish, drugs, liquor, explosives, endangered species and radioactive products. In certain other areas such as textiles, clothing and footwear, quotas have been introduced to lessen the volume of imports and thereby minimize their impact on domestic producers.

Control Lists are available from the Publishing Center, Department of Supply & Services, Ottawa, Ontario, KlA 0S9.

1.3.3 Labelling

1.3.3.1 Non-Food Products

Under the Consumer Packaging and Labelling Act and its regulations, labels on non-food products must provide the following information:

i) The identity of the product, usually stated in terms of its common or generic name or its function;
ii) The net quantity of the product in metric units;
iii) The name and location of the manufacturer or the distributor.

Labels affixed to garments and household furnishing fabrics are governed by the Textile Labelling Act and its regulations. This Act has three basic requirements:

i) Disclosure of the fibre content by generic name, stating the percentage composition by weight in both English and French;
ii) Identification of the dealer by whom or for whom the article is manufactured or by whom the article was imported and labelled;
iii) Disclosure of the country of origin, if the article or any part of it is imported.

1.3.3.2 Food Products

Labels on food products must show the common name, net quantity and the name and address of the company. In addition, a list of ingredients appears on most prepackaged food products. Most prepackaged food products also contain the following information, although not prescribed by statute, including: "Best Before" date advising at which date the food is no longer at its top quality; where the food should be stored; whether artificial flavouring is in the product; and, if the number of servings is indicated, the size of each serving should be shown.

1.3.3.3 False or Misleading Labels

The Consumer Packaging and Labelling Act contains a prohibition against false or misleading statements on the labels of food and non-food products. The Act attempts to ensure that claims on a label that are related to the product's performance, quantity, and composition are accurate.

1.3.3.4 General

With certain exceptions, bilingual labelling is mandatory on prepackaged goods in Canada. The Province of Quebec requires that items distributed in that province must have French labels or be accompanied by a French version.

In addition to the bilingual requirement, there are 60 categories of goods which must have the country of origin of the goods clearly and legibly marked on them. If the goods are not properly labelled, they must be so marked on their arrival in Canada. Some examples of the categories of goods which must be labelled with the country of origin are: goods for personal and household use, hardware, novelty and sporting goods, paper and printed products, and wearing apparel.

1.3.4 Entry

The person bringing any goods into Canada must provide Canada Customs with:

a) an invoice of the goods showing the place and date of purchase, the name of the person or firm from whom the goods were purchased, a full description of the goods, the quantity and value of the goods; and,

b) a bill of entry of such goods, written or printed in duplicate, setting out the name of the importer, the description of the goods, marks, and numbers and contents of the packages, the country from which the goods are imported, the country of origin of the goods, the quantity and the value of the goods.

1.3.5 Transportation

Transportation is a significant factor in determining which rate of duty to apply to the imported goods. For example, goods from Australia which are trans-shipped through the U.S. would not receive the British Preferential tariff rate, but the higher most favoured nation rate accorded to shipments from the U.S.

1.3.6 Packing and Insurance

Packaging charges, which are in addition to those which apply in the exporter's domestic market, and insurance charges, if paid by the exporter and passed on to the Canadian importer, must be shown as a separate item from the selling price of the goods. Packaging charges are included in the value for duty, while insurance charges are not dutiable or subject to other taxes.

1.3.7 Drawbacks

The purpose of drawback legislation is to enable Canadian manufacturers to compete more effectively in foreign markets. A drawback of duty and sales taxes paid on goods and materials at the time of importation is allowed when those goods and materials are used in the manufacture of a product which is subsequently exported. Manufacturers in Canada with proven export records may be granted remission of duty on imported goods and materials, which are to be used in the manufacture of products for export, at the time of entry.

In addition, imports of specified plant equipment or key materials used by certain Canadian industries may be subject to duty drawbacks. Drawbacks are also granted on obsolete or surplus goods which were not consumed in Canada, and were destroyed in Canada under Customs supervision. Drawbacks are applicable to goods for home consumption such as glass tumblers, woven fabrics, ethnic costumes, paper, pool tables and other items.

1.3.8 International Trade Zone

The first international trade zone in Canada was established at the Sydport Industrial Park in Cape Breton. This allows companies to import materials free of duty, manufacture or assemble products in Cape Breton and export these products to other countries, for example, the U.S. This allows companies to manufacture in Canada at lower cost for export and provides an attractive ingress to the lucrative U.S. market.

1.3.9 Shipments in Bond

Shipments of goods, which are destined to be re-exported or which will not be consumed for some time after their arrival in Canada, may be placed in a bonded warehouse. This means that the goods are not subject to duty and taxes. However, upon removing all or some of the goods destined for domestic consumption, these duties and taxes must be paid at the time the goods leave the bonded warehouse.

1.3.10 Temporary Importations

Goods which enter Canada for only a temporary period of time are subject to a remission of duty. The goods which fall within the "articles for special use" category (samples, articles for repair, entertainment equipment and sideshows, motion pictures, plans, drawings, blueprints and other items) are subject to a remission of all duties and excise taxes payable. Items which are temporarily imported to assist Canadian industry (jigs, dies, patterns, recording equipment, construction equipment of a kind not made in Canada) are dutiable at a rate of 1/60th of the total duty, to be paid each month for the period in which the items remain in Canada.

1.3.11 Machinery Program

The objective of this program is to ensure that Canadian industry can obtain the most advanced equipment available at the lowest possible cost. In so doing, Canadian industry will be able to increase efficiency and competitiveness both in domestic and foreign markets. The program provides for a remission of duty payable on goods classified under certain tariff items. The basis for granting remission is that it is in the public interest (i.e. reduces capital costs of machinery users), or that the machinery is not available from production in Canada. There are four conditions under which applications for machinery remission will be considered:

1) applicant must complete a form titled "Application for Remission of Duty on Imports under Tariff Items 42700-1 and 41100-1" (available at any Custom Office);

2) applications can be accepted before importation but no later than 90 days after the date of customs clearance;

3) applications by those other than users of the machinery must provide assurances that the remission will be reflected in prices to users; and,

4) remission will not be recommended on the first $500 of the value for duty on machinery eligible for remission covered by any one application.

For more information, please write to: The Secretary, Machinery and Equipment Advisory Board, Department of Regional Industrial Expansion,
235 Queen Street, Ottawa, Ontario, K1A 0H5.

1.3.12 Export Controls

As a general rule, there are no special permits required to export goods from Canada. However, under the Export and Import Permits Act, export permits are required for a wide range of goods as described in the Export Control List (ECL), and are required for all export destinations except, unless otherwise indicated, the U.S. The ECL is divided into 10 groups as follows:

Group 1	-	Animals and Agricultural Products
Group 2	-	Wood and Wood Products
Group 3	-	General Purpose Industrial Machinery and Electronic Devices
Group 4	-	Transportation Equipment
Group 5	-	Metals, Minerals and their Manufactured Products
Group 6	-	Chemicals, Metalloids and Petroleum Products
Group 7	-	Arms, Munitions, Military, Naval and Air Stores
Group 8	-	Atomic Energy Materials and Equipment
Group 9	-	Goods originating outside Canada
Group 10	-	Miscellaneous Goods and Materials

In addition to the ECL, there is an Area Control List (ACL) for which exporters must obtain a permit prior to exportation. The ACL includes Albania, Bulgaria, Czechoslovakia, the German Democratic Republic and East Berlin, Hungary, Poland, Romania, the Union of Soviet Socialist Republics, Mongolia, the Democratic People's Republic of Korea and the Socialist Republic of Vietnam.

There are penalties imposed under the Export and Import Permits Act for failure to obtain an export permit.

For further information concerning the definition of specific goods controlled under each category of the ECL, or procedures with respect to obtaining an export permit, please contact: External Affairs, Export Controls Division, Special Trade Relations Bureau, P.O. Box 481, Station "A", Ottawa, Ontario, K1N 9K6.

2. METHODS OF DOING BUSINESS

Canada prides itself on the freedom of its inhabitants and institutions. Investors are able, within general legal principles governing persons, property and obligations, to determine and adopt a business structure best suited to their individual needs. The more common types of business structure are described under "Business Formation". The more significant restraints on business are discussed below:

Anti-Trust Activity: Canadian anti-combines legislation seeks to eliminate restrictive trade practices in order to stimulate maximum production, distribution and employment through open competition. Legislation dealing with such measures is found in the Combines Investigation Act, administered by the Department of Consumer and Corporate Affairs. At the end of 1985, the government introduced amendments to the Combines Act which will change its name to the Competition Act; create a new civil tribunal to hear disputes; update regulations governing corporate mergers; and investigate anti- competitive practices, and abuse of monopoly position. Competition regulation will be brought into step with Canada's international position. The current legislation makes illegal the operation of combines which prevent, or lessen unduly, competition in production, manufacture, purchase, barter, sale, storage, rental, transportation or supply of an article of trade or commerce or in the price of insurance. While exchange of information between companies is not illegal, the legislation prohibits such exchanges if their purpose is to reduce the possibility of increased competition in areas of prices, production quantities or quality, customers, markets or distribution channels, or if it has the effect of restricting entry or expansion into a business, trade or industry. Any arrangement which affects the volume of export trade is subject to the Act. It is illegal to participate in a merger or monopoly which is, or could be, detrimental to the public. No price discrimination or predatory price cutting is allowed. If other buyers are willing to purchase on the same terms and quantities, they must be afforded the same prices. Differential regional pricing is not permitted, if the goal or effect is to reduce competition. Advertising or display allowances made to customers must be offered in proportion to their purchases and any required customer-incurred expenses must be in proportion to purchases. No service may be exacted in return for allowances unless all different types of customers are able to perform that service.

The Combines Act also contains provisions forbidding false or misleading advertising as to price or about the goods or services offered. The resale price maintenance clause holds that the suggested list price be only that. Suppliers are prohibited from prescribing the final sale price of a product, nor can the supplier reduce supplies if a merchant normally does not sell at the suggested price. Exceptions to this provision allow the supplier to cut off supplies if the product is normally sold as a loss-leader, as bait advertising, or if the merchant is engaged in misleading advertising or fails to provide the service expected by the final purchaser.

3. LICENCING AND JOINT VENTURE ARRANGEMENTS

(i) Licencing: Canada has no organized regime covering licencing. No registration or public disclosure of a licensing arrangement is required. Exclusive licencing arrangements may be reviewable under the Combines Act. However, the type of arrangement depends upon whether it is a restrictive practice and it is suggested that a legal opinion be procured.

Canada has no exchange controls or other restrictions on transfers or payments outside the country, including such items as profits, dividends or royalties. However, Canada has a general withholding tax of 25 percent, which can be reduced to 15 percent or less if payment is made to companies or individuals in any of the countries with which Canada has concluded tax treaties. Licencing agreements are a form of commercial contract, but are not written in any specific form.

If the licence involves a patented product or process, then the licencee must obtain patent rights to market or manufacture the product in Canada or in any other country in which the product is made or sold.

Royalties are generally calculated as a percentage of product sales, but are sometimes based on production (either units, volume or weight), net profit, or are in the form of lump sum payments. In some cases, the licensor may demand minimum performance requirements, with penalties for failure to produce results. In some cases, a licencing agreement is tied in with the purchase of components or machinery from the licensor. This practice may be prohibited, depending on the circumstances, as it falls within the purview of the Combines Act.

(ii) Joint Ventures: Joint ventures come about when two or more businesses combine resources in a third business or undertaking, for a limited time period, defined by contract. Joint ventures may or may not be partnerships, depending upon the ownership of assets and responsibility for debts. There are equity and non-equity joint ventures. A non-equity joint venture occurs when the parties make uncapitalized contributions to the venture, such as licencing, technical assistance agreements, contract manufacturing or participation in marketing. Equity joint ventures, where the parties invest capital or resources in the new business, can be either incorporated or unincorporated. In the former case, each party becomes a shareholder in the joint venture corporation. The corporation is a legal entity and the parties have roles within its structure defined by their contracts, the articles of incorporation and by existing corporate law. The unincorporated joint venture has no identity of its own, is not a separate legal entity and the parties remain distinct. The unincorporated joint venture is defined by contract. In practice, longer-term joint ventures such as manufacturing ventures, are generally incorporated. Unincorporated joint ventures are usually found in construction and resource ventures, which are more limited, one-time or one-contract operations.

One great advantage of a joint venture arrangement is the opportunity for technology transfer between the parties. Another, no less important, is the creation of economic activity, either in capital spending, creation of a manufacturing entity, development of resources, or work on very large projects where the parties' uncombined resources would be insufficient to carry out the project individually.

4. SELLING AND ADVERTISING IN CANADA

Canada, like the U.S., but unlike Japan and many European countries, is comprised of many diversified and segmented markets. The variety of factors which cause this phenomenon can easily be overcome to market products or services successfully in the country, by taking advantage of the extensive, leading edge communications network already in place in Canada.

Canada is an urban society, with about 75 percent of its population living in larger centres. At least 30 percent live in Toronto, Montreal and Vancouver. All Canadians have access to radio and most are exposed to television. There are two national English language radio networks, the CBC and CKO, and two cross-country English language television networks, the CBC and CTV, supplemented by smaller local networks, such as Global in Ontario, which accept advertising through which most Canadians can be accessed. There is one national French language radio and TV network, Radio-Canada (CBC), supplemented by a regional Quebec network, TVA. Advertising through other media (newspapers, magazines) is widely available. All major centres have at least one daily newspaper and likely several weekly publications. There are many popular Canadian-produced magazines and specialty publications which can direct advertising to targeted audiences. Advertising is a regulated activity, as described above (see Anti-trust Activity). In addition to federal scrutiny, advertising matter may be subject to regulation by other levels of government and by trade or manufacturing associations. In Quebec, there is a ban on advertisements aimed directly at children (i.e. toys, cereals, etc.). Finally, one should bear in mind that advertising expenses in non-Canadian-owned magazines (e.g. Time, Newsweek) is not tax deductible as per section 19 of the Income Tax Act.

Proximity to the U.S. is a positive factor. Highly populated border centres in the U.S. are able to receive Canadian transmissions and some U.S. cable television networks carry Canadian channels, including their advertising. However, most Canadians reside in close proximity to the U.S. and are accessed by U.S. advertising. For export to the U.S., the Canadian transportation system forms an integral part of the North American system via road, rail, air and water.

Sales by a Canadian branch office or subsidiary are subject to the same treatment, including taxes, as any other business in Canada. In Manitoba and Alberta, travelling salesmen from other provinces (or countries) are required to register. A transient trader's license is generally required for each municipality in which a salesman operates. In several provinces, a provincial transient salesman's license exempts the employee from municipal taxes. When an intermediary is used to sell a product, such agents are normally required to register in each of the provinces in which they are situated.

Sample products can enter Canada under normal import regulations, subject to applicable tariffs, taxes and duties, unless a customs arrangement, a carnet, is obtained, which assures that the products are for demonstration and not for sale; or if brought into Canada for demonstrations, by a sales representative who does not live in Canada. In the latter case, a refundable duty deposit may be required. Samples with commercial value are subject to normal import regulations. Printed advertising can enter the country duty-free, as can individual copies of catalogues and price lists.

5. TRADING OPERATIONS

In general terms, the non-Canadian investor may operate in Canada under the same forms of business organization as Canadian investors. No special federal license or permit is required to conduct an import-export business. However, permits are required for the import or export of certain commodities, under the authority of the Export and Import Permits Act. The prospective importer or exporter must apply to the Office of Special Trade Relations, Department of External Affairs, Ottawa, Ontario, Canada, K1A 0G2, each time he proposes to import or export a controlled item.

Import permits are required for a number of commodities including some dairy products, poultry products, sugar and coffee, various textile and clothing items, and endangered species.

Export permits are required for some goods, especially strategic materials, for shipment to certain specified countries.

The Export and Import Permits Act Handbook, Control Lists, Regulations, etc. are available from the Publishing Centre, Department of Supply and Services, Ottawa, Ontario, Canada, KIA 0S9. Within Canada, goods are able to move freely, subject to provincial and federal regulations regarding specified products.

6. STANDARDS, BUILDING, PLUMBING AND ELECTRICAL CODES

Standards in Canada are not set or regulated by any single agency. Federal, provincial and municipal governments are involved, as well as private agencies. Some of the major private agencies are part of the National Standards System of Canada (NSS), an entity organized and co-ordinated by the Standards Council of Canada (SCC).

The National Standards System is made up of private and public organizations concerned with voluntary standardization in Canada.

The Standards Council of Canada operates a Standards Information Service (SIS) to assist users of standards in identifying and verifying the existence of standards documents. It also identifies the organization responsible for publishing them and advises where and how standards documents may be purchased or procured. The SIS publishes a Directory and Index of Canadian voluntary standards published by the five standards-writing organizations in the NSS. The five standards-writing organizations accredited by the Standards Council to establish and publish National Standards in Canada are: the Canadian General Standards Board, the Canadian Standards Association, the Canadian Gas Association, the Underwriters' Laboratories of Canada and le Bureau de Normalisation du Québec.

The Canadian General Standards Board (CGSB) is recognized by the Standards Council of Canada as a standards-writing organization with responsibility for the development of National Standards of Canada in more than 70 subject areas. The CGSB provides administrative expertise and support to the public and private sectors on standards, specifications, qualification and certification matters.

CGSB products and services, in summary are: consensus standards development; purchasing specifications development; sale of standards and specifications; qualification and certification-listing programs for products and services when deemed necessary by the government; and sale of qualification and certification lists. The CGSB utilizes expertise and resources from other organizations, including the three levels of government and industry and consumer associations, to assist in the implementation of its programs.

The Canadian Standards Association (CSA) is an independent private organization which is the recognized authority in establishing standards for a wide range of products and services including: electrical installation, electrical apparatus, and equipment to be used with provincial government approval in construction.

Building codes are intended primarily to ensure the structural adequacy and fire safety of buildings and to prevent the development of health hazards. A number of provinces have been developing uniform building standards based on the National Building Code of Canada which is gaining widespread acceptance in the country, and is often used as the basis for provincial codes. The erection or alteration of a building for commercial or industrial use is normally subject to provincial government control. Drawings and specifications must be submitted to the provincial Department of Labour or equivalent for approval. Municipalities issue building permits for their territories in accordance with their local zoning and building by-laws. Plumbing codes are usually based on the Canadian Plumbing Code, which is a part of the National Building Code.

The CSA issues standards covering consumer durables and is recognized as Canada's main standards setting and product-testing organization. The CSA is, in addition, involved in establishing various construction and maintenance codes and in providing a uniform standard for adoption by provincial authorities throughout Canada. Lack of CSA certification on items determined to be the cause of accidents or fires may void insurance coverage in Canada. Warranties on imported goods lacking CSA approval may be void in Canada, even if such goods are similar to products sold in Canada and which have CSA approval.

The Canadian Gas Association (CGA) is an independent organization and is the recognized authority in preparing and establishing standards for gas and propane appliances and equipment. The CGA meets regularly with the federal and provincial governments, and with several consumer advisory committees, in an effort to draw public awareness to the approved standards established by the CGA.

The Underwriters Laboratories of Canada (ULC) is an independent organization accredited by the Standards Council to develop and publish standards in Canada relating to fire protection and prevention, burglary protection and prevention, general safety standards for buildings and all hazardous materials as they relate to buildings. The ULC is primarily involved with safety standards for industry, rather than consumers.

The Bureau de Normalisation du Quebec (BNQ) establishes and publishes standards, for the most part, for commodities purchased by the Quebec provincial government. These standards include those relating to steel, paint, laboratory equipment and a number of textiles.

It should be noted that standards published by the BNQ are available free of charge, while the other four organizations sell their own publications.

Certain organizations which are heavily involved in standards work have entered into liaison with the National Standards System under the designation "Organization in Liaison". These are the Associate Committee on the National Building Code and the Associate Committee on the National Fire Code, both sponsored by the National Research Council of Canada. This is a co-operative effort designed to achieve improved co-ordination of standardization activities in Canada.

One major aspect of standardization is certification. Certification assures that a product meets specifications or minimum performance or safety requirements that a committee of users, industry and government representatives considers important.

A certification mark from one of Canada's five accredited certification organizations indicates that a product has been found to conform with the technical requirements of one of several specific standards. Certification marks are affixed to products made after certification has been granted, and spot checks are performed regularly to ensure that the product continues to meet requirements. Occasionally, certification is made mandatory, usually (like standards) where safety is concerned. For example, the requirements for certification of electrical products is covered by provincial legislation, but typically it is the manufacturer's choice whether or not to have his product certified.

The five accredited certification organizations within the National Standards System are: the Canadian Gas Association (CGA), the Canadian Standards Association (CSA), the Council of Forest Industries (COFI), Underwriters' Laboratories of Canada (ULC) and Warnock Hersey Professional Services (WHPS).

The CSA certifies a diverse selection of electrical products, both consumer and commercial (tools, appliances, office machines). They are concerned with health-care product technology (child-resistant packaging), occupational health and safety (chainsaws, ladders), and public safety (bicycles, hockey helmets, eye protectors for racquet sports), to cite but a few examples.

ULC certification relates to life, fire and property hazards. Products such as fire protection equipment (smoke alarms, fire extinguishers), burglar alarms, chimneys, and fireplace inserts are certified by the ULC.

The CGA writes standards for and certifies gas-fuelled products, such as gas barbecues, swimming pool heaters, gas furnaces and portable camping equipment.

WHSP certifies fire-resistant constructions, such as fire doors, fire door frames, and hardware and wall assemblies. COFI is the newest and most specialized certification organization, certifying plywood made from soft woods.

7. DEBT COLLECTION

Bills for products or services in Canada are generally payable on delivery. Other arrangements are not unusual and might involve payment within 30, 60 or 90 days. It is not uncommon for interest to accrue on overdue accounts. Unpaid bills can be pursued through the courts, or accounts may be sold at a discount to debt collection agencies.

8. DOING BUSINESS WITH THE FEDERAL GOVERNMENT

The federal Department of Supply and Services, Supply and Services Administration, acts as the purchaser of goods and services for federal government departments and agencies. There are, however, certain exceptions, listed below:

a) each government department and agency has a pre-authorized purchasing limit of $500 per transaction;

b) each government department and agency may enter into a consulting services contact if the amount of the contract does not exceed;

  i) $25,000, or

  ii) $50,000 provided that at least three proposals have been considered. There are increased spending limitations for Supply and Services Canada, Auditor General of Canada, Secretary of State for External Affairs when acting on behalf of the Canadian International Development Agency, and the Commissioner of Official Languages.

c) each government department and agency may enter into a non-consulting services contract if the amount of the contract does not exceed;

  i) $50,000, or

  ii) $100,000 and at least two valid tenders have been received and the lowest tender has been accepted. There are increased spending limitations for Supply and Services Canada, Transport Canada, Public Works Canada, Secretary of State for External Affairs acting on behalf of Canadian International Development Agency, and the Commissioner of Official Languages.

d) each government department or agency may enter into a construction contract if the amount payable under the contract does not exceed

  i) $4,000, or

  ii) $200,000 and at least two valid tenders have been received, the lowest tender has been accepted, and the contract is a firm price contract. Once again, there are certain departments with higher spending limits - Public Works Canada, Indian and Northern Affairs Canada, Defense Construction (1951) Ltd., Transport Canada and Environment Canada acting on behalf of Parks Canada.

e) with respect to the contracting of non-consulting services contracts and goods contracts, any department or agency may enter into such contracts, regardless of the amount payable under the contracts, if the contract is entered into pursuant to a standing offer agreement (an agreement whereby a supplier undertakes to supply, on demand, goods or services described in the agreement at the price stated in the agreement and subject to all the other terms and conditions set out in the agreement) that has been approved by the Treasury Board; and

f) there are "exceptional contracts" which specifically relate to the activities of certain departments.

Supply and Services Canada has prepared a publication entitled "Selling to Supply and Services Canada" which provides the potential supplier with a good understanding of what is involved in doing business with the federal government. This publication is attached as Appendix I.

For any additional information, please contact: Corporate Relations Branch, Supply Administration, Supply and Services Canada, 14th Floor, Core A1, Place du Portage, Phase III, 11 Laurier Street, Hull, Quebec,
Telephone: (819) 997-2686, Telex: DSS HULL 053-3703.

APPENDIX I

SELLING TO SUPPLY AND SERVICES CANADA

This appendix serves to inform as well as answer the questions most frequently asked by private companies that want to do business with the Federal Government.

Supply and Services Canada (SSC) is divided into the Supply Administration and the Services Administration, each under the direction of a Deputy Minister.

This appendix describes the various activities of the Supply Administration, a common service agency, which buys approximately six billion dollars worth of goods and services annually to supply the programs of other federal government departments and agencies.

The Role of the Supply Administration

The Supply Administration is responsible for:

a) acquiring and providing goods and services to departments;
b) planning and organizing for the provision of material and services required by departments;
c) acquiring goods and services from Canadian suppliers on behalf of foreign governments;
d) operating government printing facilities;
e) operating government publishing and exposition services;
f) disposing of federal government surplus assets;
g) contracting for federal government advertising;
h) investigating and developing services to increase the efficiency and economy of the Public Service of Canada; and
i) implementing the Contracting-out Policy in Science and Technology.

The Supply Administration provides the following services:

a) Requirements Definition
b) Commercial Acquisitions
c) Science and Engineering Acquisitions
d) Stocked Item Supply
e) Maintenance and Repair
f) Warehousing
g) Traffic Management Services
h) Assets Management
i) Printing Production
j) Publishing
k) Expositions
l) Advertising Management
m) Disposal Management Operations

These services are provided by directorates at the Headquarters level and by a national network of regional supply centres.

SELECTING POTENTIAL SUPPLIERS

The Federal Government's contracting regulations are based on the principle of competition. Within this framework, SSC has had a long-standing policy that restricts the solicitation of tenders to Canadian-based firms, providing there is sufficient competition. Some of these preferential measures will be circumscribed, however, because of commitments under the GATT Agreement on Government Procurement that became effective on January 1, 1981.

The GATT Agreement on Government Procurement requires that each signatory's laws, regulations, procedures and practices regarding government procurement of certain goods and related services not discriminate among products or suppliers from other signatory countries. Thus, Canada is obligated to provide the same treatment to foreign suppliers as to domestic suppliers for those goods and related services covered by the Agreement. More information on the GATT Agreement on Government Procurement is below.

Methods of Acquisition

Public advertising is used to fulfill government requirements when it is the most effective means to ensure adequate competitive response. Normally, however, the Supply Administration solicits bids directly from vendors listed in SSC source lists.

Headquarters

Suppliers are selected from source lists according to priority groups. All suppliers listed in a particular group have the same priority. The priority groups are as follows:

Group I

a) Canadian-based manufacturers manufacturing or processing the particular commodity;

b) Canadian-based manufacturers who do not manufacture the particular commodity in Canada, but are treated for sourcing purposes as if it were made in Canada, pursuant to an agreement between DSS and the firm, which accords such treatment on the basis of, and commensurate with, the economic benefits to Canada resulting from the firms's rationalized operations in Canada;

c) Canadian-based companies acting as bona fide agents of Canadian manufacturers if such manufacturers do not sell directly to the government or other customers as part of their normal marketing policy, provided such companies offer suitable after-sales services;

d) With respect to requirements for services; Canadian-based companies providing the particular services.

Group 2

Canadian-based companies acting as bona fide agents of Canadian or foreign manufacturers, when such companies offer suitable after-sales services.

Group 3

Other Canadian-based companies acting as bona fide agents or distributors of Canadian or foreign manufacturers.

Group 4

a) Foreign-based manufacturers or service companies;

b) Foreign-based agents;

c) Foreign governments or selling agencies of foreign governments.

Contracts awarded under the Contracting-out Policy in Science and Technology give highest priority to Canadian industrial performers. Where a Canadian industrial performer cannot be identified, the requirement is contracted to others in the private sector, including universities and non-profit organizations such as provincial research institutes.

Regional supply centres and district offices

To be listed at the regional level, firms are required to have an office or a branch within the geographical area covered by the SSC regional office concerned. The departmental policy for regional purchasing limits solicitations to firms located within the area covered by the regional office, when sufficient trade support exists. If necessary, competition for a particular requirement may extend beyond the immediate area. Then existing source lists are obtained from the other regional offices and/or from Headquarters.

SOLICITATION OF BIDS

Who can bid on government contracts?

Any person, firm or corporation should explore the possibilities of doing business with the Federal Government. You need only indicate your interest and be prepared to provide evidence that you can supply the required goods or services under the specified terms and conditions.

Where is purchasing done?

In addition to the central purchasing operations in Hull, there are 19 regional supply centres, districts and sub-offices located across Canada. The regional offices are specifically charged with satisfying the needs of regional customers and encouraging local suppliers to fill Federal Government needs. Outside of Canada, there are supply offices in Washington, D.C., Koblenz, Germany and London, England. (See Regional supply centres, districts and sub-offices)

How does the Supply Administration solicit bids?

There are three methods:

An Invitation to Tender is normally used for requirements valued at more than $25,000, where two or more qualified sources are asked to bid. The contract award is based on the lowest responsive bid and the requirement is fully defined. Bids that deviate from the essential elements, terms and conditions of the Invitation to Tender are considered non-responsive and disqualified. Generally, unclassified Invitations to Tender are opened in public:

A Request for Quotation may be used for requirements valued at less than $25,000 and is not opened in public;

A Request for Proposal (RFP) is normally used for non-competitive requirements valued at more than $25,000 and for competitive requirements where the selection of the supplier cannot be made solely on the basis of the lowest-priced responsive bid. Proposals are evaluated on relevant technical, scientific, financial, managerial, price or socio-economic factors identified in the solicitation. Requests for Proposal are not opened in public.

Is the closing date for bids ever changed?

Yes. In certain unusual circumstances, it may be necessary to extend or shorten the bidding period. The date change can be initiated by Supply and Services Canada or at the request of one or more of the firms invited to bid. Changes to closing times will be considered only when time allows all bidders to benefit equally from the advantages deriving from the changes. Normally, the bidding period will not be amended less than 24 hours before the established closing time.

Under what circumstances may a single source contractor be selected?

Justifying circumstances frequently encountered are as follows:

a) a specific product is required for reasons of logistics, where the introduction of a non-standard item would cause operating and maintenance difficulties or extra costs;

b) a monopoly of the technology essential to the procurement is held by one firm because of a patent or licensing position, previous specialized experience, or unique machinery and equipment in position to commence production;

c) the scope of volume of the requirement places it beyond the normal capability of the industry, and special facilities must be provided by the firm with the most related experience;

d) the requirement is of a very small order that does not warrant the expense of inviting and submitting tenders;

e) there is clearly only one qualified firm available when all factors and pertinent policies are taken into account;

f) the claiming of purchase credits accumulated through the rental of equipment or real property makes single source procurement the most cost effective;

g) the conservation of a particular source is necessary to ensure the fulfillment of future needs of government;

h) the work is one of pressing urgency in which delay would be injurious to the public interest;

i) acceptance of an unsolicited proposal for scientific activities that meets the criteria of sponsorship by another government department, priority, scientific merit and uniqueness in idea, opportunity of capability.

Can modifications, corrections, withdrawals or clarifications be made to a bid?

Bids can be modified, corrected, clarified or withdrawn in writing or by telex or commercial telegram before the time and date set for closing.

What are source lists?

Supply and Services Canada (SSC) keeps extensive records of the thousands of commodity groupings that are purchased. Matched against these are the names of companies that wish to be considered as suppliers, and which are considered capable of carrying out the terms and conditions of the contract.

A separate list is maintained for firms and organizations capable of conducting scientific activities. This list is based on a keyword system which provides a profile of experience, expertise and special capabilities.

How do I know what goods and services are required by the Federal Government?

A list of major goods and services purchased by the Supply Administration on behalf of departments and agencies of the Federal Government is available. To obtain a copy of this commodity list, write to: Director, Corporate Relations Branch, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.
Tel.: (819) 997-2686.

How do I get my firm listed?

To have the name of your firm listed, write to: Director, Corporate Relations Branch, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5, or contact the nearest SSC regional office in your area (see Regional supply centres, districts and sub-offices).

How do I know what goods and services I am listed for with SSC?

Firms listed with headquarters (national supplier) will be notified by the Sourcing and Priorities Division of the Supply Information and Data Management Branch. For confirmation or information on source listings, please visit or write to: Sourcing and Priorities Division, Supply and Services Canada, Ottawa, Canada K1A 0S5. Tel.: (819) 997-5660.

Firms listed at the regional level will be notified of their registration by the appropriate regional office.

Are suppliers ever removed from source lists?

Suppliers who frequently fail to bid without adequate reason, or do not meet the terms and conditions of contracts, may be removed from source lists. In all cases, the supplier is advised before action is taken.

RECEIPT, CUSTODY AND OPENING OF BIDS

If I can't bid through the mail in time, is there any other way to submit a bid?

If you doubt that your bid will be received on time, you may submit your quotation by telex or commercial telegram. Include the following information: the bid number, closing date and hour, item number, price, delivery date, FOB point, federal sales tax and any deviation(s) from the original tender document.

In the case of a Request for Proposal, the bidder should contact the SSC officer that solicited the proposal to determine the minimum information required.

For requirements originating from Headquarters, send your telex to: Director, Corporate Relations Branch, Supply Administration, Supply and Service Canada, Telex number DSS Hull 053-3703.

A bid submitted by telex or telegram before closing time should be confirmed immediately in the manner stipulated in the solicitation.

Does SSC accept bids 24 hours a day?

At Headquarters, bids are accepted 24 hours a day. From 8 A.M. to 4 P.M. bids should be delivered to the designated office. After office hours, weekends and holidays, bids can be deposited in a Bid Depository Box located near the commissionaire's desk in the main lobby of: Place du Portage, Phase III, 11 Laurier Street, Hull, Quebec.

In the regions, bids are accepted only during office hours.

What security arrangements does SSC have for Handling bids?

When bids are received, they are placed in a double-locked box until the date and time of the official opening at which two witnesses must be present.

Who may be present at public openings?

Anyone may attend public openings.

CONTRACTS

How are contracts awarded?

It is considered that competition establishes a fair price, and that the best way to award a contract is to solicit competitive bids from several suppliers. Although awards are made on the basis of price, other contract terms, including delivery and quality, must be met.

In the case of Requests for Proposal (RFPs), the proposals are evaluated on the basis of pre-established, weighted, evaluation criteria as outlined in the request. The contract is awarded for best over-all value where price is only one factor.

Under what circumstances would a contract be terminated?

A contract may be terminated if a supplier fails to meet the contractual requirements for quality and delivery, or when the requirement for the goods and services ordered no longer exists.

Where can I get information on contracts that have been awarded?

For contracts under $50,000 issued by Headquarters, information is available upon request by specifying the contract number in writing to: Director, Corporate Relations Branch, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

For information on contracts originating from regional offices, get in touch with the issuing office (see Regional supply centres).

The Bulletin of Business Opportunities lists successful bidders for unclassified contracts issued by Headquarters for more than $50,000, and by the regional offices for over $1,000. To receive the Bulletin, write to: Information Services Branch, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

Information on successful bidders for research and development contracts is published in the monthly Research and Development Bulletin. To be placed on the mailing list, write to: Programs and Systems Support Group, Science and Professional Services Directorate, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

What is a standing offer?

A standing offer is a means for permitting user departments and agencies to contract direct with suppliers at pre-arranged prices or pricing methods, and at fixed terms and conditions, for specific periods of time on an "as required" basis.

From the time a standing offer is established, there is no obligation until the user department or agency places a "call-up" (order) with the supplier. A standing offer is not a contract; the "call-up" establishes the contractual obligation.

Realistic estimates of qualities, quantities and value are normally established for each standing offer. However, there is no obligation for the Crown to contract any or all of the estimated usage.

These arrangements are usually restricted to products and services available through outlets near the user departments or agency location. Standing offers are used for items such as pharmaceutical supplies, plumbing supplies, repair and maintenance of equipment, professional services and data processing supplies and services.

Payment policy

The Federal Government has adopted, as of April 1, 1983, a standard period of 30 days for payments to suppliers of goods and services. By adopting this standard payment policy, it has also introduced a policy on payment of interest on overdue accounts if the government is the cause of delay. Suppliers may now claim interest from the 31st day of an overdue account. The allowed rate of interest is the Bank of Canada's bank rate in effect at the close of business on the date on which the amount is overdue, plus 1 1/4 percent.

Procedure

When requesting interest, suppliers need not calculate the amount. The amount overdue for which interest is claimed will be sufficient. Interest will be computed by multiplying the amount by the allowed rate and the period expressed as a fraction of a year in days, i.e. the number of days in the period for which interest may be paid over a denominator of 365.

Suppliers will be required to request interest within 90 days of the date on which the amount was paid.

The government will not pay interest on an interim basis, nor will it pay interest on interest charges.

TIPS ON DOING BUSINESS

If you have products or services you can supply, do let us know. Only you can tell us what you do. With approximately 90,000 listed firms to supply thousands of items and services (and both figures are growing), we need your help to keep our lists up-to-date at both national and regional levels. If you have a new product, or if you have dropped an old one, do keep us informed.

Contract terms may vary from one requirement to the next. Avoid problems by knowing what is expected of you and what you may expect from us. The bid and contract forms spell out mutual legal responsibilities, and you may clear up any doubts with the project officer. In your desire to be competitive, don't overlook things like special packaging, marking, and shipping instructions that may not be routine.

Small companies play a particularly important role in the supply of goods and services to the Federal Government; you are invited to participate in the government procurement program.

Send your bid in sufficient time to ensure that it is received before the due date. If you need more time to bid, request an extension.

To ensure prompt payment, send all invoices to the specified address in your contract. Bill accurately and completely. Follow the contract's invoicing instructions explicitly. Always include the correct reference number(s).

POLICY ON LATE BIDS

Definition and policy

A late bid is a bid received in the specific location designated in the bid solicitation after the stipulated closing date and time. Late bids are not acceptable and are returned unopened to the sender. If a late bid must be opened to determine the name and/or address of the sender or the nature of the enclosure, a covering letter will explain why it was necessary to open the bid.

A delayed bid is a bid received in the specific location designated in the bid solicitation after the stipulated bid closing date and time because of abnormal delay in delivery, attributed to the Canada Post Corporation or to SSC.

A delayed bid received prior to contract award may be considered provided:

a) the delay can be SUBSTANTIATED as having been due solely to an abnormal delay in the mail;

b) it can be SUBSTANTIATED that the bid was received by SSC in sufficient time to be delivered to the specific location designated for the receipt of bids and, in the course of normal internal delivery procedures, would have been received at such location before the closing date and time except for delay due to mistaken handling in SSC.

What do you mean by "abnormal delay in the mail"?

For the solicitation of bids and the priorities associated to this exercise, SSC considers that 48 hours (96 hours outside Canada) is an acceptable standard for the delivery of specially marked bid return envelopes to the designated office within SSC.

Therefore, bids mailed in the Canada Post Corporation system less than 48 hours (96 hours outside Canada) prior to closing time and date and received late will not be considered, and will be returned to the sender.

Acceptable evidence of abnormal delay in the mail

The only pieces of evidence acceptable to SSC are a Canada Post Corporation Cancellation Time Stamp or a receipt issued by the Canada Post Corporation CLEARLY indicating the time and date of registration of the specific item of mail.

Postmarks or receipts which show only the date and not both date and time shall be assessed as having been mailed on the date shown at the same time of day and time zone as that designated for the closing bids for that solicitation. Postmarks or receipts showing only a time, but not a date, do not constitute acceptable evidence.

Metered mail

Postage meter imprints, whether imprinted by the supplier or by the Canada Post Corporation, are not acceptable as proof of timely mailing.

Telegraphic bids

Only mistaken handling in SSC will excuse the delay of a telegraphic bid. Mistaken handling by others, misrouting, volume traffic, weather disturbances or any other causes for the late receipt of telegraphic responses are not acceptable to SSC.

Customs clearance

When transmitting a bid that requires customs clearance before SSC takes possession of the bid, it is the bidder's responsibility to allow sufficient time to obtain such clearance before the scheduled bid closing date and time. Such instances cannot be construed as "undue delay in the mail".

Responsibility for delivery of bids

The bidder has the sole responsibility for the timely receipt of a bid and cannot transfer such responsibility to the government.

Withholding award of contract

An appeal by a bidder for re-consideration of a rejected late bid will not constitute grounds for withholding the award of a contract.

PRINTING AND RELATED SERVICES

Suppliers who are interested in bidding for Federal Government printing and related requirements should write to: The Director, Printing and Office Products Branch, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

SCIENCE AND TECHNOLOGY

The Science Branch of the Operations Sector is responsible for implementing the government's Contracting-out Policy in Science and Technology with its aim of contributing to the enhancement of industrial research and development. Contracts awarded allow the private sector to work on scientific requirements of other government departments, and in so doing, to build the experience, expertise and credibility to improve the firm's capabilities and opportunities. In general, proposals are either solicited directly by using a Request for Proposal, or are advertised in the monthly Research and Development Bulletin (R&D Bulletin). To be listed as suppliers for scientific work or to obtain a copy of the R&D Bulletin, organizations should write to:

Programs and Systems Support Group, Science and Professional Services Directorate, Supply and Service Canada, Ottawa, Canada, K1A 0S5.

As an adjunct to the Contracting-out Policy, the Unsolicited Proposals Program allows the private sector to submit, on its own initiative, unsolicited proposals for scientific work which may be of interest to other government departments. The Programs Branch of the Science and Professional Services Directorate administers this program and provides for the timely and consistent review of the proposals. Upon receipt of an unsolicited proposal, the Branch distributes it to those government departments that may be interested in the subject matter and requests a response within a reasonable period. To be accepted, a proposal must meet the following criteria:

1. The proposal must be sponsored by a government department (other than SSC) as being within its scientific mandate, and must be of high enough priority for the sponsor to accept financial responsibility for the projects (see next paragraph);

2. The proposal must have scientific merit and technical feasibility;

3. The proposal must be sufficiently unique that SSC can waive its normal competitive procedures. This can mean that the proposal contains an innovative idea or the proposer has a unique capability or opportunity.

If an unsolicited proposal is accepted but the sponsoring department does not have sufficient funds in its current budget to pay for the work, the sponsor can obtain financial assistance from the SSC Unsolicited Proposal Fund to provide bridge funds until the sponsor can assume the financial responsibility. If a proposal is accepted and can be funded, a contract will be negotiated with the supplier.

To obtain more information concerning the program, or to make a submission, write to: Director, Programs Branch, Science and Professional Services Directorate, Supply Administration, Supply and Services Canada, Ottawa, Canada, KIA 0S5.

PUBLISHING

Suppliers interested in participating in the federal co-publishing program should write to: Director, Canadian Government Publishing Centre, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

EXPOSITIONS

Suppliers of exhibit and/or audio-visual goods or services who wish to be listed with the federal government should write to: Director, Canadian Government Expositions Centre, Supply Administration, Supply and Services Canada, 440 Coventry Road, Ottawa, Canada K1A 0T1.

ADVERTISING

The listing of advertising suppliers is conducted jointly by the Advertising Management Services Branch of Supply and Services Canada and the Advertising Management Group. Enquiries should be directed to: Director, Advertising Management Services Branch, Supply Administration, Supply and Service Canada, Ottawa, Canada, K1A 0S7.

EXPORT MARKET

Export Supply Directorate

Business opportunities available through SSC are not limited to sales to the Government of Canada. There is also a sizeable export market, access to which is assisted by our Export Supply Directorate that seeks out Canadian sources of supply for foreign governments.

The Export Supply Directorate acts primarily as the contracting agency, on behalf of the Canadian Commercial Corporation, when other countries and international agencies wish to purchase commodities from Canada on a government-to-government basis. To be considered for inclusion in the bidders' source lists, simply indicate your desire to export when applying to the department for listing as a supplier.

If you wish additional information on export opportunities, write to: Director General, Export Supply Directorate, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

CANADIAN BUSINESS SUB-CONTRACTING OPPORTUNITIES PROGRAM

SSC purchases goods and services worth approximately $6 billion on behalf of federal departments and agencies each year. The primary concern in making such purchases is to obtain the best possible value for the taxpayers' money.

SSC policy limits competition to companies established in Canada, unless the activity in question is subject to international purchasing agreement. Canadian suppliers thus receive about 80 percent of the value of contracts awarded by SSC.

Small and medium-sized businesses (SMB), on the other hand, receive about 40 percent of these contracts. To allow SMB to secure a greater share of government contracts, SSC has introduced the Canadian Business Sub-Contracting Opportunities Program.

This program is designed to encourage companies that receive large government contracts to award their sub-contracts to Canadian-based firms.

For further information, contact: Corporate Relations Branch, Supply Administration, Supply and Service Canada, Ottawa, Canada, K1A 0S5. (819) 997-2686

GATT AGREEMENT ON GOVERNMENT PROCUREMENT

On January 1, 1981, the GATT Agreement on Government Procurement came into effect for the world's major economic powers, including Canada. This Agreement, which represents a significant change from the previous trading climate, is designed to open a substantial portion of government procurement to international competition on a non-discriminatory basis. The countries involved are Canada, the U.S., Switzerland, Austria, Finland, Norway, Sweden, Japan, Hong Kong, Singapore, Belgium, The Federal Republic of Germany, France, Ireland, Italy, Denmark, Israel, Luxembourg, the Netherlands and the U.K.

Although large segments of government contracting, such as service contracts, are excluded, this Agreement is an important step toward reducing a major non-tariff barrier to trade. The Agreement has opened, to international competition, a market worth some $40 billion in purchases annually.

Of particular interest to Canadian producers will be the improved access to the U.S. market. Since January 1, 1981, the U.S. government has waived "Buy America" restrictions for almost all the major U.S. government departments as well as many other agencies and commissions. Important examples are the General Services Administration, the Department of Health, Education and Welfare, non-military purchases of the Department of Defense, the National Aeronautics and Space Administration, the Civil Aeronautics Board and a long list of others. The Agreement covers a wide range of products, from office furniture and machines, to sophisticated electronics equipment and special vehicles. U.S. government agencies alone represent a market of more than $15 billion.

In addition to the opportunities offered by the U.S., similar markets are opening to Canadian suppliers under the Agreement in the other countries noted above.

Supply and Services Canada acts as purchasing agency for all Canadian government departments and agencies, so it is responsible for applying the provisions of the Agreement.

Suppliers outside of Canada who wish to become eligible competitors in supplying goods to the Government of Canada are invited to submit an application for the products for which they seek qualification. Source listing documentation can be obtained from: Corporate Relations Branch, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.
Tel.: (819) 997-2686

The trade component of External Affairs Canada is helping Canadian exporters to identify specific opportunities arising out of the requirements of other signatories, and to follow the procedure necessary in pursuing this new and very important market.

For further information concerning particular markets and opportunities, Canadian exporters should contact: GATT Affairs Division, External Affairs Canada, Ottawa, Canada, K1A 0H5. Tel.: (613) 993-6098

SOURCE DEVELOPMENT FUND (SDF)

What is the SDF?

The $10 million Source Development Fund (SDF), established in 1981, is an element of the government's overall economic development strategy with regard to procurement. Administered by Supply and Services Canada, the SDF is used to establish domestic sources of supply for selected government needs, where this will produce lasting industrial benefits to Canada.

What can the SDF be used for?

Subject to certain conditions, and consistent with accepted international obligations such as the GATT Agreement on Government Procurement, the SDF could be used for any of the purposes identified below:

1. Product Innovation

   When future government needs have been identified, the Fund could be used to finance product development costs to meet these requirements.

2. Increased Canadian Content

   The Fund could be used to provide funding to a prime contractor to cover costs associated with sub-contracting to small Canadian firms, where this would lead to long-term industrial benefits;

3. "Front-End" Development Cost

   These would be research and development or certain capital costs associated with creating a Canadian capability prior to the actual procurement of the final product.

What conditions must be met?

Proposals for use of the Fund must meet the following conditions:

1. As SDF funds can only be made available through contracts let by a contracting authority such as Supply and Services Canada and Public Works Canada, proposals must be related to current or firmly identified future government requirements;
2. The SDF is a complement to, not a substitute for, annual program appropriations. Proposals should be limited only to the incremental costs associated with the technological, regional and industrial benefits of a procurement project;
3. Most important, the fund can be used only in conjunction with those procurements likely to deliver lasting industrial benefits, and to improve the structures and competitive ability of Canadian industries.

How to Apply?

Proposals may be submitted by existing or potential government suppliers. Such proposals should briefly describe the action suggested and its associated costs, the level of financial assistance required, the government requirement that would be met or better met, as well as the anticipated industrial benefits of taking such action.

Source Development proposals should be forwarded to: Manager, Canadian Business Opportunities Group, Supply Administraton, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

INDUSTRIAL SECURITY

Suppliers interested in participating in pre-contractual negotiations for which security clearances and visit authorizations are a prerequisite to obtaining access to classified information or restricted areas, national or foreign, should write to: Director, Security Branch, Supply Administration, Supply and Services Canada, Ottawa, Canada, K1A 0S5.

Corporate Relations Branch
Supply Administration
Supply and Services Canada

14th Floor, Core A1
Place du Portage, Phase III
11 Laurier Street
Hull, Quebec
Tel.: (819) 997-2686
Telex: DSS Hull 053-3703
Ottawa, Canada
K1A 0S5

Bid Receiving Unit:

Room 1-335, 1st Floor, Core B2
Place du Portage, Phase III
Hull, Quebec
Tel.: (819) 997-5651
Telex: DSS Hull 053-3703
Ottawa, Canada
K1A 1C9

Headquarters Directorates

Operations Sector Supply Administration Supply and Services Canada

Place du Portage, Phase III
11 Laurier Street
Hull, Quebec
Telex: DSS Hull 053-3703
Ottawa, Canada
K1A 0S5

Canadian Government Expositions Centre
440 Coventry Road
Ottawa, Ontario
K1A 0T1
Tel.: (613) 993-9566

Canadian Government Publishing Centre
2nd Floor, Core B3
Tel.: (819) 997-5014

Aerospace & Armament Directorate

Procurement Operations Branch
(Aircraft Acquisitions, Repair & Overhaul, Armament & Armoured Vehicles, Avionics, Logistics)
8th Floor, Core C1
Tel.: (819) 997-6290

Scientific, Electrical, Mechanical & Construction Products Branch
7th Floor, Core A2
Tel.: (819) 994-4211

Industrial & Commercial Products Directorate

Transportation and Energy Products Branch
7th Floor, Core B3
Tel.: (819) 994-3343

Consumers Products and Traffic Management Branch
9th Floor, Core B3
Tel.: (819) 997-5219

Communications Services Directorate

Advertising Management Services Branch
3rd Floor, National Printing Bureau Building
45 Sacré-Coeur Blvd
Hull, Quebec
K1A 0S7
Tel.: (819) 997-7266

Marine, Electrical and Industrial Systems Directorate

Procurement Operations Branch
Marine Systems, Industrial Systems
Communications Systems, Electronic Systems
6th Floor, Core C1
Tel.: (819) 997-6742

Office Automation, Services & Information Systems Directorate

Information Processing Systems Branch
2nd Floor, Core C2
Tel.: (819) 997-7244

Printing & Office Products Branch
5th Floor, Core B3
Tel.: (819) 997-7244

Science & Professional Services Directorate

Science Branch
12th Floor, Core C1
Tel.: (819) 997-6373

Professional Services Branch
10th Floor, Core C1
Tel.: (819) 997-7676

Regional Supply Centres, Districts and Sub-offices

Regional Operations Sector Supply Administration

Atlantic Region

Nova Scotia

Atlantic Region Supply Centre
Supply and Services Canada
2 Morris Drive
Burnside Industrial Park
Dartmouth, Nova Scotia
B3B 1S6, Tel.: (902) 426-3881
Telex: DSS REGSUP DRT 019-31554

Halifax Sub-Office, CFB Halifax
Supply and Services Canada
Building D 155, 3rd Floor
Halifax, Nova Scotia
B3K 2X0
Tel.: (902) 426-4889
Telex: BASESUPPLY HFX 019-23541

New Brunswick

Saint-John District Supply Office
Supply and Services Canada
Room 229, Customs Building
189 Prince William Street
Saint John, New Brunswick
E2L 2B9
Tel.: (506) 648-4895
Telex: DSS REGSUO SNB 014-47293

Moncton Purchasing Sub-Office
Supply and Services Canada
Room 207, Post Office Building
1075 Main Street
Moncton, New Brunswick
E1C 1H0
Tel.: (506) 338-6020
Telex: DSS SUO MCTN 014-2663

Mailing Address:
Moncton Purchasing Sub-Office
Supply and Services Canada, P.O. Box 710
Moncton, New Brunswick, E1C 8M9

Newfoundland

St. John's District Supply Office
Supply and Services Canada
Building 205, Mitchell Place
Pleasantville
St. John's, Newfoundland
A1A 1S8
Tel.: (709) 737-5396
Telex: DSS REGSUO SNF 016-4672

Goose Bay Purchasing Sub-Office
Supply and Services Canada
Building 271
P.O. Box 7001, Station "A"
Goose Bay, Labrador
A0P 1C0
Tel.: (709) 896-2191
Telex: DSS SUOCEN GBAY 016-2240

Quebec Region

Quebec Region Supply Centre
Supply and Services Canada
800 Golf Road
Nun's Island
Montreal, Quebec
H3E 1G9
Tel.: (514) 283-5791
Telex: DSS REGSUP MTL 05-25425

Quebec District Supply Office
Supply and Services Canada
Room 301
1040 Belvedere Avenue
Quebec, Quebec
G1S 4N1
Tel.: (481) 694-3151
Telex: DSS REGSUO QBC 051-3559

Longue-Pointe Purchasing
Sub-Office
Supply and Services Canada
6769 Notre-Dame Street East
Montreal, Quebec
H1N 2E9
Tel.: (514) 283-8097
Telex: DSSMASMLP MTL 05-828670

Mailing address:
Longue-Pointe Purchasing Sub-Office
Supply and Services Canada
P.O. Box 6109
Montreal, Quebec
H3C 3H7

Bas St-Laurent - Côte Nord
Purchasing Office
Supply and Services Canada
1534 Jacques-Cartier Boulevard
Room 201
Mont-Joli, Quebec
G5H 2V8
Tel.: (418) 775-8849
Telex: DSS MAS MJLI 051-86402

Laval Purchasing Sub-Office
Supply and Services Canada
250 Montée St-Francois, Bldg. F32
Laval, Quebec
H7C 1S5
Tel.: (514) 661-5987
Telex: SOLGENMAS VDS 05-268866

Saguenay, Lac St. Jean Purchasing Office
Supply and Services Canada
170 St. Joseph Street South
Alma, Quebec
G8B 3E8, Tel.: (418) 662-6613
Telex: DSS PUR ALMA 051-36348

Ontario Region

Ontario Region Supply Centre
Supply and Service Canada
Suite 200
Etobicoke, Ontario
M9C 5A4
Tel.: (416) 622-8111
Telex: DSS REGSUP TOR 06-217616

London Purchasing Sub-Office
Supply and Services Canada
457 Richmond Street
London, Ontario
N6A 3E3
Tel.: (519) 679-4035
Telex: IAND LON 064-7127

Downsview Purchasing Sub-Office
Supply and Services Canada
c/o C.F.B. Toronto
Building 151
Downsview, Ontario, M3K 1Y7
Tel.: (416) 633-6200
Telex: DSS DNVW TOR 065-23081

Burlington Purchasing Sub-Office
Supply and Services Canada
867 Lakeshore Road
P.O. Box 846
Burlington, Ontario, L7R 3Y7
Tel.: (416) 637-4300
Telex: CCIW BUR 061-8396

North York Purchasing Sub-Office
Supply and Services Canada
c/o Atmospheric Environment
Services
4905 Dufferin Street
Downsview, Ontario
M3H 5T4, Tel.: (416) 667-4929
Telex: DOE HQAES TOR 06-964582

North Bay Purchasing Sub-Office
Supply and Services Canada
Room 203
215 Oak Street East
North Bay, Ontario
P1B 8P8
Tel.: (705) 476-4340

Capital Region

Capital Region Supply Centre
Supply and Services Canada
1010 Somerset Street West
Ottawa, Ontario
K1A 0T4
Tel.: (613) 995-1121
Telex: DSS ISC OTT 053-3575

Kingston District Supply Office
Supply and Services Canada
P.O. Box 6400, 407 Counter Street
Kingston, Ontario
K7L 5J5
Tel.: (613) 547-4159
Telex: DSS KDO KGTS 066-3379

Manitoba Region

Manitoba Region Supply Centre
Supply and Services Canada
100 Otter Street
Winnipeg, Manitoba
R3T 0M8
Tel.: (204) 949-6114
Telex: DSS REGSUO WPG 07-57734

Shilo Purchasing Sub-Office
Supply and Services Canada
P.O. Box 160
Shilo, Manitoba
R0K 2A0
Tel.: (204) 765-4779
Telex: DSS SHILO 07-502797

Western Region

Alberta

Western Region Supply Centre
Supply and Services Canada
15508 - 114 Avenue
Edmonton, Alberta
T5M 3S8
Tel.: (403) 420-3704
Telex: DSS REGSUP EDM 037-3960

Calgary District Supply Office
Supply and Services Canada
Room 620
220 - 4th Avenue S.W.
P.O. Box 2904, Station "M"
Calgary, Alberta
T2P 3C3
Tel.: (403) 231-5701
Telex: DSS REGSUP CGY 038-21884

Saskatchewan

Regina District Supply Office
Supply and Services Canada
Canadian Imperial Bank of Commerce
Building
Room 1000
1867 Hamilton Street
Regina, Saskatchewan
S4P 2C3
Tel.: (306) 359-5601
Telex: DSS REGSUP REG 071-2731

Yukon Territory

Whitehorse Purchasing Sub-Office
Supply and Services Canada
204 Lambert Street
Mezzanine
Whitehorse, Yukon Territory
Y1A 1ZA
Tel.: (403) 668-5808
Telex: DSS PUR WHSE 036-8-297

Pacific Region

Pacific Region Supply Centre
Supply and Services Canada
3551 Viking Way
Richmond, British Columbia
V6V 1W6
Tel.: (604) 666-6364
Telex: DSS REGSUO VCR 043-55731

Victoria District Supply Office
Supply and Services Canada
Room 318
Canadian Customs House
816 Government Street
Victoria, British Columbia
V8W 1X2
Tel.: (604) 388-3160
Telex: DSS DISSUP VIC 049-7380

Abbotsford Purchasing Sub-Office
Supply and Services Canada
P.O. Box 7000
33344 King Road
Abbotsford, British Columbia
V2S 6E2
Tel.: (604) 854-2516
Telex: DSS REGSUP VCR 043-55731

European Region

England

European Region Supply Centre
Canadian Department of
Supply and Services
MacDonald House
No. 1 Grosvenor Square
London, W1X 0AB
England
Tel.: 01-629-9492 Ext. 612
Telex: DSS LDN
(Via External Affairs)

Germany

Koblenz Supply Office
Canadian Department of Supply
and Services
5400 KOBLENZ
Mainzer Strasse 39
Post fach 566
Federal Republic of Germany
Tel: 0261-3-404/0261-3-6042
Telex: DSS KOBLENZ
(081661 BWB KOBLENZ)

Washington Region

Director of Supply
Washington Region
Supply and Services Canada
Canadian Embassy
2450 Massachusetts Avenue N.W.
Washington, D.C. 20008, U.S.A.
Tel.: (202) 483-5505
Telex: DSS WASHINGTON
008-9532 (CAN DSS ITC WSH)

MAJOR GOODS AND RELATED SERVICES PURCHASED BY SUPPLY AND SERVICES CANADA

Agricultural Machinery and Equipment
Agricultural Supplies
Aircraft and Airframe Structural Components
Aircraft Components and Accessories
Aircraft Launching, Landing and Group Handling Equipment
Alarm and Signal System
Ammunition and Explosives
Bearings
Books, Maps, and Other Publications
Brushes, Paints, Sealers and Adhesives
Chemicals and Chemical Products
Cleaning Equipment and Supplies
Clothing, Individual Equipment, and Insignia
Communication Equipment
Construction, Mining, Excavating, and Highway Maintenance Equipment
Construction and Building Materials
Containers, Packaging, and Packing Supplies
Data Processing Hardware and Software
Electric Wire, and Power and Distribution Equipment
Electrical and Electronic Equipment Components

Engines, Turbines and Components
Engine Accessories
Fire Control Equipment
Fire Fighting, Rescue, and Safety Equipment
Food, Preparation and Serving Equipment
Fuels, Lubricants, Oils and Waxes
Furnaces, Steam Plant, and Drying Equipment; and Nuclear Reactors
Furniture
Ground Effect Vehicles, Motor Vehicles, Trailers, and Cycles
Guided Missiles
Hand Tools
Hardware and Abrasives
Household and Commercial Furnishings and Appliances
Instruments and Laboratory Equipment
Lighting Fixtures and Lamps
Live Animals
Lumber, Millwork, Plywood and Veneer
Maintenance and Repair Shop Equipment
Materials Handling Equipment
Measuring Tools
Mechanical Power Transmission Equipment
Medical, Dental, and Veterinary Equipment and Supplies
Metal Bars, Sheets, and Shapes
Metalworking Machinery
Miscellaneous
Musical Instruments, Phonographs, and Home-Type Radios
Nonmetallic Crude Materials
Nonmetallic Fabricated Materials
Office Machines, Visible Record Equipment
Office Supplies and Devices
Ores, Minerals and their Primary Products
Outboard Motors
Photographic Equipment
Pipe, Tubing, Hose, and Fittings
Plumbing, Heating, and Sanitation Equipment
Prefabricated Structures and Scaffolding
Printing, Duplicating and Bookbinding Equipment
Printing and Related Services
Pumps and Compressors
Railway Equipment
Recreational and Athletic Equipment
Refrigeration, Air Conditioning, and Air Circulating Equipment
Rope, Cable, Chain and Fittings
Service and Trade Equipment
Ships, Small Craft, Pontoons, and Floating Docks
Ship and Marine Equipment
Space Vehicles
Special Industry Machinery
Subsistence

Textile, Leather, Furs, Apparel and Shoe Findings, Tents and Flags
Tires and Tubes
Toiletries
Tractors
Training Aids and Devices
Valves
Vehicular Equipment Components
Water Purification and Sewage Treatment Equipment
Weapons
Woodworking Machinery and Equipment

MAJOR SERVICES (NOT RELATED TO GOODS) PURCHASED BY SUPPLY AND SERVICES CANADA

Accommodation and Food (includes rental of dwellings, hotel)
Advertising Services
Agricultural Services
Audi-Visual and Photographic Services
 (includes Scale Models, Displays and Special Arts Requirements)
Building Installation Special Trade Services
 (includes Repairs, Maintenance, Demolition, etc.)
Business Services
 (includes Building Cleaning and Janitorial, Temporary Help, Data Processing, Testing, Security and Machine Shop Services)
Communications
Construction
Consulting Services
 (includes Engineering Services)
Co-Publishing Services
Educational Services
 (includes Training, Seminars and Conventions)
Exhibit and Related Audio-Visual Services
Financial Insurance and Real Estate
 (includes Building Rental)
Forestry Services
 (includes Forest Fire-Fighting, Aerial Water Bombing and Pest Control)
Health and Welfare Services
 (includes Recreational Services)
Repair and Overhaul of Equipment
Transportation and Charters
Utilities (Electricity, Water, Gas and Sanitary Services)
 (includes Snow Removal)

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BUSINESS FORMATION IN CANADA

Business can be conducted in Canada under several different types of organization. The primary factors which determine the form of organization are: the type of business, the size of operations and the number of people employed. There are perhaps six major types of business organization in Canada: sole proprietorship, general partnership, limited partnership, corporation, branch of foreign companies and joint venture.

1. SOLE PROPRIETORSHIP

A sole proprietorship is unincorporated and carried on under the name of the owner. It is the most popular type of business organization in Canada. There is virtually no registration with a licensing authority, except in cases where the business is carried on under a distinctive name, and in such instances, registration would be with the appropriate provincial government(s). A sole proprietor is personally responsible for all debts and obligations, and payment of income taxes on the profits. On the other hand, the sole proprietor is the recipient of all the profits and benefits derived from the operation of the business. A sole proprietorship is not subject, legally, to audit, but it must maintain and make available for inspection adequate financial records.

2. GENERAL PARTNERSHIP

This form of business organization is also unincorporated, and is similar, in most respects, to that of a sole proprietorship, with the exception that there is more than one owner. The owners are the partners of the business. General partnerships must be registered with the appropriate provincial authorities, and in so doing, there are certain legal rights accorded to the partnership, for example, the right to legal action arising from a partnership contract. The partners are each liable for all of the debts and obligations of the partnership and any of the partners can bind the partnership with or without the consent of the other partners. Also, the profits accrue to the partners, and are divided in accordance with the written partnership agreement. In the absence of a written agreement, the profits are split equally. As with a sole proprietorship, the general partnership is not subject to audit but must maintain adequate financial records for inspection for income tax purposes. As the general partnership is not an entity subject to tax, the partners are responsible to report their respective share of the profit or loss of the partnership on their personal income tax returns.

General partnerships are formed to carry on the business of most types of commercial enterprises except for banking, insurance, or a public utility, which must be carried on by an incorporated entity under the appropriate legislation.

3. LIMITED PARTNERSHIP

There are two classes of partners which comprise a limited partnership. First, there are general partners who conduct the day-to-day operations of the business of the partnership and have the same responsibilities and liabilities as the partners of a general partnership, as set out above. Second, there are limited partners who contribute only capital to the partnership. The limited partners do not participate in the management of the partnership and are not liable for the debts and obligations of the partnership, except to the extent of the capital each has contributed. Limited partners share in the profits of the partnership in the manner set out in the partnership agreement.

The limited partnership must be registered with the appropriate provincial authorities. In addition, parties to a limited partnership must sign a declaration indicating the name under which the business is to be carried on, the general nature of the business to be carried on, the names and addresses of all the general partners and limited partners stating which are the former and which are the latter, the amount of capital each limited partner has invested, the dates when the partnership is to be commenced and when it is to be dissolved, and its principal place of business. The declaration must be notarized.

For tax purposes, the rules which apply to a general partnership apply to a limited partnership.

4. CORPORATIONS

A Canadian corporation is a legal entity in which the shareholders' liability for debts and obligations of the corporation is limited to the amount each shareholder has subscribed, or agreed to subscribe, for shares of the corporation. In Canada, a company can be incorporated in one of three ways:

1. Under the federal Canada Business Corporations Act;
2. Under one of the provincial acts respecting companies or corporations; or,
3. By special act of the Parliament of Canada, or by an act of one of the provincial legislatures.

Companies incorporated federally are entitled to carry on business throughout Canada, but are subject to provincial laws. Provincially incorporated companies are entitled to carry on business in the province of incorporation and must be registered or licensed in any other province in which they wish to carry on business. Compared to the U.S., legal formalities for incorporation are less onerous, and experience has shown that there is less corporate litigation in Canada than in the U.S.

4.1 Federal Incorporation

Federal incorporation ensures that a company can exercise the same powers in all provinces without discrimination, subject to provincial legislation. The Canada Business Corporations Act (CBCA) is the general statute governing federal incorporation. When contemplating operations in more than one province, it is usually preferable to incorporate under federal authority.

CBCA makes provision for individuals or corporations to file articles of incorporation and receive a certificate of incorporation for any legal purpose. It is permissible for one or more corporations to be shareholders of a new corporation. Exceptions are businesses such as insurance, loan and trust companies, banking, and the issue of paper money.

It is not necessary to state the new corporation's objectives in the articles of incorporation, but the articles may set out any restrictions on the business which the corporation is planning to conduct.

The following documents must be completed and forwarded to the Director of Corporations, Department of Consumer and Corporate Affairs, Ottawa/Hull, Canada K1A 0C9: the articles of incorporation, a notice of the corporation's registered office, and a notice of directors.

More detailed information on incorporation procedures, a copy of the act, and a free client information kit, including guidelines for incorporation, are available from the Information Section of the Corporations Branch, Department of Consumer and Corporate Affairs, Ottawa/Hull, Canada K1A 0C9.

4.2 Articles of Incorporation

When articles of incorporation are filed, they must contain: the proposed corporate name; any restrictions on the type of business the new corporation may undertake; the Canadian location of the corporation's registered office; details of capital stock; the number of directors; and the full names, addresses and signatures of the applicants.

It must be noted that one of the words "Limited", "Incorporated", or "Corporation" should be the last word in the company name. It is permissible to use the abbreviations "Ltd.", "Inc." or "Corp.". The Corporations Branch, Department of Consumer and Corporate Affairs, will conduct a name search (and reserve the name if approved) for a fee of $5.00 per name. As part of the application process, the Corporations Branch must ensure that there is no conflict between the proposed name of the new corporation and existing corporations. The Corporations Branch may refuse a particular name on the grounds that it is misleading as to the particular nature of the proposed business. For these reasons, it is advisable to ask for a search in advance.

Corporations may use the word "Canada" in their name when they are the subsidiary of a concern with an identical name organized under the law of a foreign country, or a Canadian province. The use of "Canada" is not permitted under other circumstances, although the words "Canada", "of Canada", or "Canadian" may be used without brackets if there is no connotation of federal government participation.

A federal corporation must have its registered office in Canada. The company's books, recording its charter, by-laws, shareholders, and directors, must be kept at the registered office. In certain cases, it is possible to keep statutory records at a transfer agent's office.

Corporations may have any number of shares of one or more classes. When there is more than one class, at least one class must have full voting rights, and the rights, restrictions, privileges and conditions attached to each class of shares must be set out in the articles of incorporation. All shares must be registered without nominal or par value. The charge for federal incorporation is a flat fee of $200.

Section 183 of the CBCA permits a corporation's directors to borrow money based on credit issue obligations, and to mortgage or pledge the corporation's property, subject to the articles of incorporation, the corporation's by-laws, or the unanimous agreement of the shareholders.

There are no regulations in the CBCA with regard to the beneficial ownership of the shares or debentures of a corporation incorporated under the CBCA, except where a constrained share corporation is required. In this case, Articles of Amendment must be filed. Up to 100 percent of the issued capital of a corporation can be held in any country or by persons of any nationality or residence, and the corporation in question is not placed under any disability. However, there are exceptions in connection with commercial aviation, fishing, coastal shipping and broadcasting companies. The requirements for share ownership in these cases have been set forth in legislation, or have been developed in the course of administrative practice.

The Notice of Directors which accompanies the Articles of Incorporation must name the first, or provisional, directors. A majority of directors must be resident Canadians. A resident Canadian is defined as a person who is:

a. A Canadian citizen ordinarily resident in Canada;
b. A Canadian citizen not ordinarily resident in Canada who is a member of a prescribed class of persons; or,
c. A landed immigrant, under the Immigration Act, and ordinarily resident in Canada. Immigrants who have not applied for Canadian citizenship within one year of eligibility are not considered resident Canadians.

A unique feature of the CBCA is the unanimous shareholders' agreement. This permits the shareholders of a company, by unanimous written agreement, to restrict the powers of the directors. A shareholder who is a party to an agreement of this type has the rights and duties of a director in those areas in which the directors have been restricted.

A Certificate of Incorporation is issued only after the Department of Consumer and Corporate Affairs has received and approved a set of articles of incorporation. Federal corporations exist as of the date of their certificates of incorporation, and they can commence operations from that date. Most provinces, however, require a form of registration to commence business.

4.3 Provincial Incorporation

A provincial charter and incorporation is usually preferable when a company intends to restrict its activities to one province. It is usually necessary for a provincial company to take out a licence in each of the other provinces in which it plans to transact business. When a company does decide to restrict its activities to one province, the instrument of incorporation is drawn up according to the laws of that province, and the company is responsible to one authority only. Duplication in the matter of filing prospectuses and reports is eliminated, and the power to hold land or to commence business operations is obtained without recourse to two different legislative bodies.

Although the companies acts of the provinces vary according to history and local requirements, they are in the main compatible with the general legislation under which federal companies are incorporated.

Provincial corporations usually have their head office in the province of incorporation, and annual meetings are usually held there unless special permission is obtained to do otherwise.

Share capital may be held by anyone, either in Canada or in a foreign country (with qualifications for commercial airline, fishing, and coastal shipping companies - as is the case under federal legislation). Incorporation fees vary from province to province.

There are two different systems of incorporation used by the provinces - letters patent system and the registration system. The letters patent system is used in the Provinces of Prince Edward Island, New Brunswick and Quebec, and this system's legal requirements are similar to the CBCA. The registration system is used in all the other provinces, as well as in the Yukon and Northwest Territories, and varies in each jurisdiction.

4.4 Private Corporations

There are certain restrictions imposed on private companies, including the right to transfer shares and the right to offer shares, debentures and other securities for public subscription. In addition, the number of shareholders is limited to no more than 50. The financial statements of a private corporation are not generally disclosed to the public. However, this aspect of a private corporation is becoming less significant, as the CBCA requires a company (private corporation) whose revenues are greater than $10 million, or whose assets exceed $5 million to make public disclosure of its financial statements.

4.5 Public Corporations

Public corporations are not subject to the restrictions imposed on private corporations, but they must conform to the disclosure requirements which are laid down by federal and provincial securities authorities.

4.6 Other Relevant Factors

4.6.1 Auditor

The CBCA and the companies acts of all of the provinces, except New Brunswick and Prince Edward Island, require the shareholders of a corporation to appoint an auditor. The auditor is generally appointed at the annual meeting of the shareholders for a term of one year. The auditor is required to examine the financial statements of a corporation and to express an opinion on them to the directors of the corporation who, in turn, present this opinion to the shareholders.

4.6.2 Share Capital

A company incorporated under the CBCA is entitled to have more than one class of shares, but the articles of incorporation must detail the rights, privileges and conditions of each class of shares. There is no minimum capital requirement set by the CBCA, but the company must maintain a separate capital account for each class of share issue indicating the amount of consideration received in respect of the shares.

4.6.3 Directors

The board of directors governs all corporation, and is elected by the shareholders of the corporation at the annual meeting. A director is generally a shareholder of the company, but in some jurisdictions, this is not a requirement. As noted earlier, the majority of the board of directors must be resident Canadians, except in certain jurisdictions which do not have a residency requirement.

The directors are charged with the overall management of the company operations. This entails exclusive authority over the appointment, duties and removal of agents, officers and employees of the company. Under the CBCA, the powers and duties of the directors to manage the company may be limited by the shareholders through a unanimous shareholders' agreement. Directors can be personally liable to the company or to shareholders for any damages resulting from their negligence.

4.6.4 Shareholders' Meetings

Under the CBCA, a meeting of the shareholders must be held in Canada (with some exceptions) not later than 18 months after commencement of the business, and no later than 15 months after the last shareholders' meeting. At the annual meeting, the board of directors presents the shareholders with the comparative annual financial statements (balance sheet, income statement, a statement of source and application of funds, a statement of surplus and the auditor's report); the auditors are appointed by shareholders; directors are elected; and by-laws are passed.

4.6.5 Dividends

Generally, there are no restrictions placed on the payment of dividends by corporations, except that withholding tax must be deducted from payments to non-residents. Also, dividends cannot be paid when doing so would impair the working capital of the corporation.

4.6.6 Prospectus

Any company proposing to issue securities must file a prospectus with the relevant provincial authorities in the provinces where the sale is to be undertaken. Federal companies are not exempt and must file a prospectus with the relevant authorities.

4.6.7 Cost of Incorporation

There is a flat fee of $200 for the issuance of a certificate of incorporation under the CBCA. Incorporation under CBCA (Ontario) would cost $200 and a $50 fee for making amendments to the articles of incorporation. Fees for incorporation payable to other provinces are different from the federal and Ontario scale, and respective provincial regulations should be consulted in this regard. The addresses of provincial administrators are listed in Appendix I.

5. BRANCHES OF FOREIGN CORPORATIONS

A foreign company can operate in Canada through a branch organization. The Canadian branch must be licensed or registered in each of the provinces in which it proposes to carry on business. The Canadian branch is responsible for maintaining proper books and records and for filing the appropriate tax returns with the federal, provincial and municipal authorities.

The foreign company is liable to the employees, creditors and third parties for all of the acts, debts and obligations contracted by its managers, agents or representatives on behalf of the branch.

Payments of royalties, management fees, commissions, etc., to non-residents are subject to withholding tax, except where the charge is for a specific cost or service, or for indirect expenses that can reasonably be considered as having been incurred on behalf of the Canadian business.

6. JOINT VENTURES

A joint venture is generally a group comprising two or more entities which come together for a limited period of time to perform a specific task. Each participating member brings a particular expertise or capital resource to the joint venture which is essential to the completion of the specific task. A joint venture can either be unincorporated or incorporated, depending primarily on the nature of the task and the length of time to completion. An unincorporated joint venture is sometimes regarded as the purest form of joint venture and is not a legal entity. During the tenure of the joint venture, each participating member maintains its separate legal status - corporation, partnership or sole proprietorship. Consequently, each participating member in this type of joint venture must include its portion of the gross revenues and expenses of the joint venture in its taxable income. Unincorporated joint ventures are usually of a short-term nature and are most common in the energy and natural resource fields and for large construction and engineering projects.

An incorporated joint venture is one in which a corporation is formed to carry out the specific task, and each participating member becomes a shareholder in the corporation. The corporation takes on its own identity and the joint venture character (outward appearance) generally becomes less apparent. This form of joint venture is normally used for long-term projects or for an on-going business, and is most suitable for a manufacturing venture.

A joint venture, whether incorporated or not, is an excellent way to transfer technology to Canada.

7. LICENCES REQUIRED TO CONDUCT BUSINESS

7.1 Import/Export

Generally, no special federal licence or permit is required to conduct an import, export or import/export business in Canada. However, under the Export and Import Permits Act, a very limited system of export and import controls has been established to regulate certain goods. Import permits are required for such goods as dairy products, certain cotton yarns, animal feeds, sugar, coffee, clothing items, poultry products and endangered species. Export permits are required for goods that have a strategic value or goods that are destined to certain specified countries.

The prospective importer or exporter must apply, in advance, to the Special Trade Relations Office of the Department of External Affairs, 125 Sussex Drive, P.O. Box 481, Station "A", Ottawa, Ontario K1A 9K6.

For further information, please telephone:

Export Controls	(613) 996-2387
Import Controls	
Agriculture	(613) 995-7762
Clothing	(613) 995-8356
Footwear	(613) 995-8104
Textiles	(613) 995-8356

7.2 Alcoholic Beverages and Products

A licence under the Excise Act must be obtained in order to manufacture alcohol, alcoholic beverages or alcoholic products in Canada. All such products, with minor exceptions, are subject to excise tax. The manufacturer must make application for a licence to the Regional Director of Excise at any of the Regional Excise Offices in Canada. The manufacturer, in addition to the licence fee, must post a bond with Revenue Canada in such amounts as may be designated.

All of the provinces in Canada have liquor control legislation which essentially give the provinces a monopoly on the retail sale of alcoholic beverages. All brewers and distillers producing and selling within a province must obtain a provincial licence for that province. In addition, all retail outlets, including restaurants and hotels which sell alcoholic beverages, must also obtain a provincial licence.

7.3 Tobacco & Tobacco Products

A licence under the Excise Act is required in order to manufacture cigars, cigarettes, snuff or other tobacco products in Canada. The retailers of tobacco and tobacco products must be licenced by the province, and some large municipalities require vendors to hold a licence.

7.4 Bonded Manufacturers and Bonded Warehouses

A bonded manufacturer is one who receives alcoholic goods into his premises, at preferred rates of excise duty, when the goods are used in the manufacture of products such as proprietary medicines, pharmaceutical preparations, essences, perfumes, vinegar, fortified wines, toilet preparations, cosmetics or approved chemical compositions. The manufacturer must first make an application to the Regional Director of Excise in whose region the business is to be carried on and must post a guarantee bond to Revenue Canada. All such goods are manufactured under Government supervision.

A bonded warehouse is one which has been approved for the storage in bond of those goods which are subject to excise tax. Goods may be transferred in bond from one bonded warehouse to another, or exported in bond without attracting excise duty. It is the shipper who is liable for the payment of any applicable excise duty until the time that the goods are delivered.

7.5 Amusement or Entertainment Tax

Generally, the province will require the operator or owners of an amusement place to obtain a licence. Some provinces and some municipalities impose an admission tax to a place of entertainment.

7.6 Gasoline Licences and Taxes

All provinces require that all parties (importers, refiners, distributors, wholesalers, retailers and agents) involved in the selling of gasoline, kerosene or distillate be licenced. In addition, a provincial licence must be obtained to place, erect or alter any gasoline pump in whole or in part.

Provinces also levy taxes on gasoline, diesel and other motive fuels.

7.7 Municipal Business Regulations

Some of the larger municipalities require licences for a wide variety of trades, establishments and services. By way of example, licences may be required for auctioneers, bakeshops, billiard and pool halls, body rub parlours, bowling alleys, butchers, driving school operators, pet shops, electricians, public garages, restaurants, refreshment vehicles and taxi cab brokers, drivers and owners. The cost of licences varies in the different municipalities. In Ottawa, for example, they range from $60 per year for a bakeshop to $2,100 per year for a Licence "D-1" refreshment vehicle.

Most municipalities require a building permit for the construction of any new building, the expansion or alteration of any existing building and the installation of heating, plumbing or air conditioning equipment. Permits are required to ensure adherence to existing zoning by-laws and provincial building codes. In Ottawa, for example, the charge for a building permit is $7.70 for each $1,000.00 worth of construction. The minimum fee is $25.00.

APPENDIX I

PROVINCIAL ADMINISTRATORS OF CORPORATION LEGISLATION

British Columbia:
Registrar of Companies
Ministry of Consumer and
Corporate Affairs
940 Blanchard St.
Victoria, B.C.
V8W 3E6

Alberta:
Companies Branch
Alberta Ministry of Consumer
and Corporate Affairs
9803 - 102A Ave.
14th Floor
Edmonton, Alberta
T5J 3A3

Saskatchewan:
Deputy Provincial Registrar
Department of the Provincial
Secretary
3rd Floor, 2121 Saskatchewan Dr.
Regina, Sask.
S4P 3Y2

Manitoba:
Ministry of Consumer and
and Corporate Affairs
Corporate Affairs
10th Floor, Woodworth Bldg.
Winnipeg, Manitoba
R3C 3L6

Ontario:
Companies Branch
Ministry of Consumer and
Commercial Relations
555 Yonge Street
Toronto, Ontario
M7A 2H6

Quebec:
Companies Branch
Inspector General of Financial
Institutions
42nd Floor, 800 Place Victoria
P.O. Box 246
Montreal, Quebec
H4Z 1G3

Nova Scotia:
Department of the Attorney-General
Registrar of Joint Stock Companies
1660 Hollis St.
Box 1529
Halifax, Nova Scotia
B3J 2Y4

New Brunswick:
Department of Justice
Consumer and Corporate Services
Branch
P.O. Box 6000
Fredericton, New Brunswick
E3B 5H1

Prince Edward Island:
Department of the Provincial
Secretary
Box 2000
Charlottetown, Prince Edward Island
C1A 7N8

Newfoundland:
Registry of Deeds, Companies
and Securities
Department of Justice
Box 4750, Confederation Building
St. John's, Newfoundland

Yukon:
Territorial Secretary and
Registrar-General
Government of the Yukon Territory
P.O. Box 2703
Whitehorse, Yukon
Y1A 2C6

Northwest Territories:
Registrar of Companies
Department of Justice and Public
Services
Government of the Northwest
Territories
Yellowknife, Northwest Territories
X1A 2L9

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INTELLECTUAL PROPERTY IN CANADA

Intellectual property in Canada is protected by federal legislation. Specifically, there are four acts which safeguard such intellectual property as inventions (Patent Act), trade marks (Trade Marks Act), literary, dramatic, musical or artistic works (Copyright Act), and industrial design (Industrial Design Act). Each of these acts is administered by the Intellectual Property Directorate of the Department of Consumer and Corporate Affairs.

1. PATENTS

A patent is a grant from the Government of Canada which gives an inventor the right to exclude others from making, using or selling an invention in Canada. An invention is any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement to any process, machine, manufacture or composition of matter, which was not obvious to a person skilled in that field of technology at the time the invention was made.

There are two purposes served by the patent system. The first is to give protection to inventors so that they have exclusive use of their invention for a period of 17 years. The second purpose is to provide public disclosure of the invention so that others can use it when the patent expires, and to provide stimulus to others to make improvements.

There are several types of inventions for which there is no patent protection. These include methods of doing business, scientific theorems and computer programs, although a recent court case might extend the Copyright Act to cover computer software.

In order to obtain patent protection, it is necessary to file an application with the Commissioner of Patents, Ottawa/Hull, Canada, K1A 0E1. The application must comply with the requirements of the Patent Act and the Patent Rules.

An applicant who is not a resident of Canada, or who does not maintain an address in Canada, must, at the time of filing an application, nominate a Canadian resident to act as representative for service. This representative is the person upon whom notices of proceedings will be served when the patent is issued. This representative for service does not act as agent for the prosecution of the application before the Patent Office, unless the representative is also a registered Canadian patent agent, appointed to act as patent agent for the application.

For further information, please contact: The Commissioner of Patents, Ottawa/Hull, Canada,K1A 0E1, TELEPHONE: (819) 997-1936.

2. TRADEMARKS

A trademark is a word, symbol or picture, or combination of these, used to distinguish the goods or services of a person or organization from the goods or services of others in the market place. The right of ownership of a trademark is created through the use of the trademark in association with the goods or services, in Canada. Registration of the mark is not mandatory, but ownership is more easily protected if it is registered.

The Trademarks Act specifies a number of types of trademarks which cannot be registered; for example, coats or arms of the Royal Family and national flags.

A trademark is registered for a term of 15 years, and can be renewed for further periods of 15 years, without limitation.

An applicant who is not residing in Canada, or does not have an office or place of business in Canada, must at the time of filing an application, nominate some person or firm to whom any notice in respect of the application or registration may be sent, and upon whom notice in any proceedings in respect of the application or registration may be given or served.

The address for further information or for filing an application is: Registrar of Trademarks , Ottawa/Hull, Canada, K1A 0E1, TELEPHONE: (819) 997-1936

3. COPYRIGHT

A copyright is the legal recognition of the creator's sole right to the use of his/her work and to share in the benefits derived from the use of this work. In Canada, it is not a requirement to register the copyright, but it is advisable to do so in order to provide prima facie evidence of the copyright ownership. Original works which are protected by copyright include literary, dramatic, musical and artistic, and the Copyright Act also extends to sound recordings and cinematographic productions. There are several other subjects which may have some protection under the Copyright Act, such as computer programs, computerized information storage, retrieval systems, performers' performances, broadcasts, and blank forms.

The copyright for written work is for the lifetime of the author, plus 50 years. The term of copyright for sound recordings and photographs is 50 years from the date of the original plate or negative.

The address to obtain further information or registration forms, or to file for registration is: Copyright & Industrial Design Office, Consumer & Corporate Affairs Canada, Ottawa/Hull, Canada, K1A 0E1, TELEPHONE: (819)997-1725.

4. INDUSTRIAL DESIGN

Canada's Industrial Design Act affords protection for articles of manufacture which have original features of shape, configuration, pattern or ornamentation. Examples of items registered under this Act include the shape of furniture, jewellery and bottles, as well as the patterns of textile fabrics and wallpaper.

Any industrial design may be registered by filing an application with the Commissioner of Patents. The term is five years, with the option for one renewal for an additional five years.

The address for more information or to file an application is: Copyright & Industrial Design Office, Consumer and Corporate Affairs Canada, Ottawa/Hull, Canada, K1A 0E1, TELEPHONE: (819) 997-1725.

5. OTHER POINTS

For those contemplating applying for a patent or the registration of an industrial design or a trademark, it may be useful to obtain the services of a registered patent agent or a registered trademark agent. These agents are required to meet standards of professional expertise and are knowledgeable of the requirements of Canadian law.

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BUSINESS TRIPS TO CANADA

1. VISAS AND OTHER FORMS OF CERTIFICATES UPON ENTRY TO CANADA

Persons wishing to visit Canada are required to be in possession of a valid passport (except citizens of the U.S., U.S. citizens or landed immigrants entering Canada from St. Pierre and Miquelon, citizens of France, residing in and entering from St. Pierre and Miquelon, or persons residing in and entering from Greenland), sufficient funds to maintain themselves while in Canada and evidence of onward transportation. Some persons will require a visa to enter Canada. Visitors should direct their enquiries regarding visa applications and valid travel documents to the Canadian High Commission, Embassy, or Consulate in their home country.

The following persons do not require a visa to enter Canada:

a. Citizens of Andorra, Antigua and Barbuda, Argentina, Australia, Austria, Bahamas, Barbados, Belgium, Belize, Boliva, Botswana, Brazil, Costa Rica, Cyprus, Denmark, Dominica, Dominican Republic, Fiju, Finland, France, Gambia, Federal Republic of Germany, Greece, Grenada, Honduras, Iceland, Ireland, Israel, Italy, Japan, Kenya, Kiribati, Lesotho, Liechtenstein, Luxembourg, Malawi, Malaysia, Malta, Mauritius, Mexico, Monaco, Nauru, The Netherlands, New Zealand, Nicaragua, Norway, Panama, Papua New Guinea, Paraguay, Portugal, San Marino, Saudi Arabia, Seychelles Republic, Sierra Leone, Singapore, Solomon Islands, Spain, St. Kitts and Nevis, St. Lucia, St. Vincent, Surinam, Swaziland, Sweden, Switzerland, Tanzania, Tonga, Trinidad and Tobago, Turkey, Tuvalu, United States, Uruguay, Vanuatu, Venezuela, Western Samoa, Zambia and Zimbabwe;

b. British citizens and British overseas citizens who are readmissible to the United Kingdom; or,

c. Citizens of the British dependent territories who derive their citizenship through birth, descent, registration or naturalization in one of the British dependent territories of Anguilla, Bermuda, British Virgin Islands, Cayman Islands, Falkland Islands, Gibraltar, Hong Kong, Montserrat, Pitcairn, St. Helena, or the Turks and Caicos Islands.

1.1 Entry Via the U.S.

All persons other than U.S. citizens, or legal, permanent residents, require a valid passport or an acceptable travel document, and some persons will require a visa to enter Canada from the U.S. Visitors should direct their enquiries regarding visa applications and valid travel documents to the Canadian High Commission, Embassy or Consulate in their home country before departure for the U.S. Only in emergency situations should applications be made to Canadian Consulates in the U.S. located in Atlanta, Boston, Buffalo, Chicago, Cleveland, Dallas, Detroit, Los Angeles, Minneapolis, New Orleans, New York City, Philadelphia, San Francisco and Seattle, or to the Canadian Embassy in Washington.

Visitors who wish to return to the U.S. after visiting Canada should check with an office of the U.S. Immigration and Naturalization Service to make sure they have all the necessary papers to get back into the U.S.

Visitors under the transit-without-visa privilege must establish:

1) that they are admissible to the U.S. under immigration laws;
2) that they have confirmed onward reservations to Canada; and,
3) that they will continue their journey on the same line or on a connecting line within eight hours after their arrival in the U.S. Such travellers cannot transfer to a connecting transportation line more than twice. The second form of transportation must depart for a foreign location (but not necessarily non-stop). The total period of waiting time for connecting transportation should never exceed eight hours, unless there is no scheduled transportation within that eight-hour period. In such a case, the traveller must continue his journey on the first available form of transportation.

2. LETTERS OF CREDIT

Businessmen conducting business in Canada may require letters of credit from their home banks, which will have corresponding relationships with banks in the Canadian cities concerned. Bankers are pleased to arrange the necessary letters of introduction.

3. CUSTOMS FORMALITIES

3.1 Personal Baggage, Recreational Equipment

Visitors may bring certain goods into Canada as personal baggage duty and tax free, provided all such items are declared to Canada Customs on arrival and are not subject to restriction. Personal baggage may include such items as: fishing tackle, boats and motors, snowmobiles, etc.; equipment for camping, golf, tennis, scuba diving; radios, television sets, musical instruments, typewriters, cameras, and other items of a personal nature to be used in Canada during the visit. Consumable goods may also be included in the quantities listed below.

3.1.1 Alcoholic Beverages

If visitors meet the minimum age requirements of the province or territory of entry (19 years in British Columbia, New Brunswick, Newfoundland, Northwest Territories, Nova Scotia, Ontario, Saskatchewan and Yukon; 18 years in Alberta, Manitoba, Prince Edward Island and Quebec) they may bring into Canada, duty-free, either: a) 1.1 litres (40 ounces) of liquor or wine; or b) 24 X 336 milliliters (12 ounces) cans or bottles of beer or ale, or its equivalent.

Additional quantities of alcoholic beverages - up to a maximum of 9 litres (two gallons) - may be imported into Canada (except to Prince Edward Island and the Northwest Territories) on payment of duty and taxes, plus provincial fees at the port-of-entry.

3.1.2 Tobacco Products

Persons 16 years of age or over may bring into Canada, duty-free, 50 cigars, 200 cigarettes and 0.9 kg (two pounds) of manufactured tobacco. Federal duty and taxes apply to additional quantities.

3.1.3 Gifts

Genuine gifts may be sent to friends or relatives residing in Canada, or may be imported by visitors, duty- and tax-free, providing the value of each gift does not exceed $40 (Canadian), and the gifts do not consist of tobacco products, alcoholic beverages or advertising material. Gift packages sent by mail should be plainly marked "UNSOLICITED GIFT" and the value should be indicated.

Gifts valued at more than $40 (Canadian) will be subject to regular duty and taxes on the excess amount.

3.1.4 Security Deposit Requirements

Conveyances and personal goods may be imported temporarily into Canada by visitors for their own use without payment of duties or taxes. With the exception of consumable items or recreational equipment for which a seasonal permit has been obtained, all goods must be taken out of Canada at the conclusion of the visit. In some instances, it may be necessary for Customs to ensure that an item is re-exported and, for this purpose, a refundable security deposit is requested at the time of entry. The deposit is refunded to the visitor's home address after the item or items are taken out of Canada. A security deposit is normally a nominal amount, but may be as high as the amount of duty and tax which otherwise applies. However, as a general rule, Canada Customs does not require security deposits when travellers enter Canada with their goods solely for vacation or pleasure purposes.

3.2 Entry by Private Motor Vehicle

The entry of vehicles and vacation trailers into Canada for touring purposes is generally a quick and routine matter. Canada Customs permits, if required, are issued at time of entry. Rental vehicles or trailers of the U-Haul variety are also admissible. However, the vehicle registration forms should be carried together with a copy of the rental contract, to indicate that use in Canada is authorized by the rental agency. Visitors entering Canada with vehicles not registered to themselves should carry a letter from the owners to indicate that use of the vehicle is authorized.

If a security deposit is deemed necessary, the amount required is generally nominal and ranges from $100 to $500 (Canadian funds). As an alternative to the posting of security in Canada, visitors may obtain a "Carnet de passage en douane" in their country of domicile before they leave home.

Animals, food and plants which are brought into Canada for personal, rather than commercial use, are subject to regulations set out by Agriculture and Health and Welfare Canada. These regulations are administered by customs officers at the border.

3.3 Business Trips, Conventions and Meetings

Business people visiting Canada may wish to import printed material, commercial samples, blueprints, charts, audio-visual material and play-back or projection equipment, etc. Depending on the length of the visit and the items brought in, and the use which will be made of them in Canada, the temporary entry of such material may be subject to the full rate of duty and tax, a portion thereof, or may be duty- and tax-free. In cases where the goods are eligible for free entry, a refundable security deposit may be required by Canada Customs.

In the case of congresses and conferences, most materials required to stage such events successfully are allowed entry into Canada without payment of duties or taxes. Display goods for exhibit at congresses/conferences - which are normally eligible for free entry - may also require a security deposit which is refundable.

For both general business purposes and congresses/exhibits, the ATA (Admission Temporaire - Temporary Admission) Carnet offers an alternative. Carnets are issued by foreign Chambers of Commerce or associations affiliated with the International Chamber of Commerce for the temporary admission of goods. With an ATA Carnet, payment of duties and taxes is guaranteed, and no other security is required by Canada Customs. The goods, however, must be admissible under the temporary entry legislation currently being applied by Canada Customs. It is recommended that, before entering Canada on business, visitors contact the Canadian High Commission, Embassy or Consulate to establish temporary entry requirements for goods they plan to import. Officials will also provide guidance as to whether or not employment authorizations are necessary. These precautions will avoid delays on entry into Canada.

3.4 Canada Customs - Regional Offices

Atlantic Region
6169 Quinpool Road
Halifax, Nova Scotia
B3J 3G6
(902) 426-2911

Québec
2 St. André Street
Québec, Québec
H1K 7P6
(418) 694-4445

Montréal
400 carré Youville
Montréal, Québec
H2Y 3N4
(514) 283-2953

Ottawa
360 Coventry Road
Ottawa, Ontario
K1K 2C6
8:00 AM - 4:30 PM (613) 993-0534
after 4:30 PM and weekends
(613) 998-3326

Toronto
Manulife Centre, 10th Floor
55 Bloor Street West
Toronto, Ontario
M5W 1A3
8:00 AM - 4:30 PM
(416) 966-8022
evenings and weekends
(416) 676-3643

Hamilton
10 John Street South
P.O. Box 989
Hamilton, Ontario
L8N 3V8
weekdays
(416) 523-2891
evenings and weekends
(416) 679-6202

London
451 Talbot Street
P.O. Box 5940
Terminal A
London, Ontario
N6A 4T9
Monday to Friday
8:45 AM - 5:00 PM (519) 679-4131

Windsor
185 Quellette Street
Windsor, Ontario
N9A 4H8
Monday to Friday
8:30 AM - 4:30 PM
(519) 254-9202 (extensions 254, 255)
evenings and weekends
Bridge (519) 254-3050
Tunnel (519) 254-3575

Winnipeg
Federal Building
269 Main Street
Winnipeg, Manitoba
R3C 1B3
(204) 949-6004

Saskatchewan
204 Towne Square
1919 Rose Street
Regina, Saskatchewan
S4P 3P1
(306) 359-6212

Alberta
220-4th Avenue S.E., Ste. 720
P.O. Box 2970
Calgary, Alberta
T2P 2M7
8:00 AM - 4:00 PM (403) 231-4610

Pacific
1001 West Pender Street
Vancouver, British Columbia
V6E 2M8
(604) 666-1545
(604) 666-1546

Canada Customs' services at all points-of-entry are offered in both English and French.

For Further Customs Information:

If you have questions about customs regulations which are not covered here, please write to: Revenue Canada, Customs and Excise, Public Relations Branch, Ottawa, Ontario, Canada, K1A 0L5, Telephone: (613) 593-6220.

4. THE CLIMATE AND WHAT TO WEAR DURING YOUR VISIT

Because of Canada's expanse, climatic conditions vary widely, and only very general information can be given. In summer, hotels, restaurants, theatres, cinemas and stores are air-conditioned. In winter, all private and public buildings, railway stations and bus terminals are heated, and all main highways are cleared of snow.

Although days in summer are warm, evenings may be cool, and visitors planning fishing, camping or canoeing trips should bring medium- and heavier-weight apparel in addition to summer clothing.

4.1 General Weather Information and Seasons

Spring - mid-March to mid-May
Summer - mid-May to mid-September
Autumn - mid-September to mid-November
Winter - mid-November to mid-March

Month/Weather	Suggested Clothing and Remarks
May Warm days but cool at night	Medium-weight and summer apparel. Enjoyable time for those who prefer spring travel. The country is green and spring flowers are in bloom generally by mid-month (earlier on the west coast). Outdoor activities begin.
June Warm	Summer clothing with some medium-weight apparel for cool evenings. Ideal for travel and all outdoor summer activities. (Note: insect repellent is a must for bush travel.)
July and August Warmest months of summer	Light-weight summer clothing. Ideal for travel and enjoying summer activities.
September Warm days, cool evenings	Light- to medium-weight clothing. Ideal for autumn travel and photography, as foliage takes on fall colouring toward end of month.
October Cool	Medium- to heavy-weight apparel. First touch of frost in the air. Excellent weather for travel and photography of foliage. Autumn colours at their peak early in the month.
November Cool - frosty	Medium- to heavy-weight apparel. First signs of snow. Travel at this time is good. Motorists should have cars winterized and snow tires are recommended.
December, January and February Winter temperatures	Winter apparel (overcoat, hat, boots, gloves). Heavy snowfall in most provinces. Excellent months to enjoy the many winter sports activities. Cars should be winterized and snow tires are recommended. (Note: all main highways and city roads are snowplowed during the winter months.)
March Moderating	Winter apparel with some medium-weight wear. Snow begins to disappear; however, outdoor activities can still be enjoyed in winter resort areas. Winterized cars with snow tires recommended.
April Milder days but evenings cool	Medium-weight apparel including topcoat. Snow disappears, except in higher mountainous areas where conditions are ideal for spring skiing.
NOTE:	Weather information is given for the southern areas of Canada. In the northern territories, the climate is somewhat cooler, particularly in the winter months. The climate is moderate during the months of June, July and August.

For temperatures in specific cities, see Table 1.

5. STANDARD TIME ZONES IN CANADA

5.1 Local Time

As the second largest country in the world, Canada spans six different time zones, as indicated on the table below.

TABLE 1

MAJOR LOCATIONS, BY TIME ZONES

Local Time	Time Zones	Canadian Cities	Corresponding U. S. Cities
2:00 PM	Pacific Standard	Whitehorse Vancouver Victoria	Seattle San Francisco Los Angeles
3:00 PM	Mountain Standard	Yellowknife Edmonton Calgary	Salt Lake City Denver Phoenix
4:00 PM	Central Standard	Winnipeg Brandon Saskatoon Regina	Chicago Kansas City Tulsa Dallas Nashville
5:00 PM	Eastern Standard	Quebec City Montreal Ottawa Toronto	Boston New York Detroit Cincinnati Atlanta Miami
6:00 PM	Atlantic Standard	Halifax Charlottetown Fredericton	
6:30 PM	Newfoundland Standard	St. John's Cornerbrook	

5.2 Daylight Saving Time

Each year, on the last Sunday in April, Daylight Saving Time comes into effect in Canada and all clocks are advanced by one hour. On the last Sunday in October, Canada reverts to Standard Time. Daylight Saving time is not observed over most of the Province of Saskatchewan; the transition from Central Daylight Time to Mountain Daylight Time therefore occurs at the Manitoba-Saskatchewan border.

6. CURRENCY

Canadian currency is based on the decimal system with 100 cents (¢) to the dollar ($). Paper currency is issued in $1, $2, $5, $20, $50, $100, $500 and $1,000 denomination. The most convenient denominations for general use are $20.00 and under. It is best to cash larger bills at the bank, as some stores and restaurants may not accept them. Coins include the cent (1¢), nickel (5¢), dime (10¢), quarter (25¢), half dollar (50¢) and silver dollar ($1), although the last two are rarely, if ever, found, in circulation.

Vistors should exchange their funds at any financial institution - bank, trust company, credit union, co-operative, caisse populaire or exchange booths at airports and border crossing points - where they will receive the prevailing rate exchange, and should use Canadian money while travelling in Canada.

Traveller's cheques in Canadian dollars are recommended, and can be purchased in major banks. In general, traveller's cheques are accepted by banks, restaurants, hotels and many business establishments.

7. HOTELS AND OTHER ACCOMMODATIONS

Canada offers a wide choice of lodgings and overnight accommodation. These include motels, motor hotels and luxury hotels.

Motels and motor hotels are normally situated along major highways and on through-traffic main arteries in urban locations. They are as comfortable as modern hotels and generally provide food services. Most have television in the rooms and swimming pools for the use of guests.

Soap and towels are provided to guests at no extra charge in hotels, motels and other lodging establishments in Canada.

Information on accommodation in Canada, and approximate costs, is available from automobile clubs, travel agents or Canadian Embassies or Consulates.

Advance reservations should be made through a travel agent for rooms in hotels or motels/motor hotels in larger cities. It is also suggested that reservations be made in advance at all major resorts in Canada. Further advance reservations can also be made in Canada through the services of the major hotel chains, which frequently employ multilingual personnel.

Hotels, airlines or travel bureaus may provide, at extra cost, some business services such as secretarial services, visiting cards, rentals, etc.

8. LAUNDRY AND DRY CLEANING

Laundry and dry cleaning services are good, quick and relatively inexpensive. Hotels offer same-day service (except on weekends) for dry cleaning, pressing or laundering. Ask for "Valet Service" or "Laundry Service". Dry cleaning (including pressing) and laundry facilities are listed in the yellow pages of the telephone directory. Self-serve laundromats are available at reasonable rates.

9. ELECTRIC CURRENT

Electricity in Canada is supplied at an alternating current of 110 volts (in Europe it is supplied at 220 volts). The frequency of Canadian electricity is 60 Hz, as in the U.S. Elsewhere it is 50 Hz. An electrical transformer is required to use appliances such as shavers and hair dryers made for use outside North America. Transformers are widely available in electric supply stores.

10. TRANSPORTATION

10.1 International

There are excellent facilities for travelling to Canada. It is recommended that visitors seek the advice of a travel agent who will be glad to assist with information regarding means and schedules for getting to Canada, hotel accommodation, prices, travel within Canada, etc.

10.2 Domestic

10.2.1 Airport Services

International airports in Canada are at: Calgary, Edmonton, Gander, Halifax, Montréal, Ottawa, Regina, Toronto, Vancouver and Winnipeg. Special services offered to air travellers at most of these airports include: foreign exchange, coin-operated lockers, telephones, duty-free shops, bars, newsstands, bookstores, drugstores and shopping concourses. Several international airports have hotels nearby.

All of Canada's major airports offer transportation services by bus, taxi or limousine. All ground transportation services to city centres, and their rates (which are based on distance), are generally advertised in air terminals. Major car rental firms have outlets at all major airports.

Many transportation terminals have special facilities for handicapped travellers: ramps, washrooms, automatic doors, etc.

10.2.2 Transportation Companies Operating in Canada

Travel agents, or the nearest Canadian Embassy or Consulate General, should be consulted concerning travel in Canada. Once visitors have arrived in Canada, addresses and telephone numbers of airlines, railways, steamship lines, bus lines and car rental offices are listed in the yellow pages of the local telephone directory.

Air Carriers

Air Canada
Place Air Canada
Montreal, Quebec
H2Z 1X5

Canadian Pacific Airlines
1 Grant McConachie Way
Vancouver International Airport
Vancouver, British Columbia
V7B 1V1

Pacific Western Airlines Ltd.
Suite 700
2nd Street S.W.
Calgary, Alberta
T2P 2W1

Nordair Ltd.
100 Boul. Alexis-Nihon
Ville St. Laurent, Quebec
H4M 2P3

Québecair Inc.
P.O. Box 490
Montreal International Airport
Dorval, Quebec
H4Y 1B5

Railway companies

Algoma Central Railway
129 Bay Street
Sault Ste. Marie, Ontario
P6A 1W7

Amtrak National Railroad
Passenger Corporation
400 North Capital Street, N.W.
Washington, D.C. 20001
U.S.A.

British Columbia Rail
1311 West First Street
North Vancouver,
British Columbia
V7P 1A7

Ontario Northland
Transportation Commission
195 Regina Street
North Bay, Ontario
P1B 2J6

Quebec North Shore and
Labrador Railway
1245 Sherbrooke Street, W.
Suite 1650, Montreal, Quebec
H3G 1G8

Via Rail Canada Inc.
P.O. Box 8116
1801 McGill College, Floor 13
Montreal, Quebec
H3C 3N3

Motorcoach companies

Acadian Lines
6040 Almon Street
Halifax, Nova Scotia
B3K 5M1

Airport Transfer Company Limited
81 Simmons Drive
Burnside Industrial Park
Dartmouth, Nova Scotia
B3B 1N7

Gray Coach Lines, Limited
700 Bay Street
Toronto, Ontario
M5G 2B6

Greyhound Lines of Canada, Ltd.
222 First Avenue, S.W.
Calgary, Alberta
T2P 0A6

Brewster Transport Co. Ltd./
Royal Glacier Tours
P.O. Box 1140
Banff, Alberta
T0L 0C0

Ontario Northland Transportation
Commission (Ontario)
195 Regina Street
North Bay, Ontario
P1B 2J6

Pacific Coach Lines Ltd.
710 Douglas Street
Victoria, British Columbia
V8W 2B3

Pacific Western Transportation Ltd.
419-34th Avenue
Calgary, Alberta
T2G 1V1

S.M.T. (Eastern) Limited
P.O. Box 6926
Station "A"
Saint John, New Brunswick
E2L 4S3

N.W.T. Coach Lines (1979),
Ltd. (N.W.T.)
P.O. Box 306
Hay River
Northwest Territories
X0E 0R0

Saskatchewan
Transportation Co.
Transportation Building
2041 Hamilton Street
Regina, Saskatchewan
S4P 2E2

Via Rail Canada Inc.
(Motor Coach Service)
P.O. Box 8116
1801 McGill College, Floor 13
Montreal, Quebec
H3C 3N3

Voyageur Colonial Ltd.
265 Catherine Street
Ottawa, Ontario
K1R 7S5

Voyageur, Inc.
505 est boul. Maisonneuve
Montreal, Quebec
H2L 4R6

Car Hire Companies

Avis Rent-A-Car System Inc.
4 Eva Road
Etobicoke, Ontario
M9C 2A8

Budget Rent-A-Car of Canada Limited
124 Merton Street
Toronto, Ontario
M4S 2Z2

Hertz System, Inc.
1153 Martin Grove Road
Rexdale, Ontario
M9W 5P8

Holiday Rent-A-Car System
372 Maitland Street
P.O. Box 2157
London, Ontario
N6A 4E3

Thrifty Rent-A-Car
260 Carlingview Drive
Rexdale, Ontario
M9W 5G1

Tilden Rent-A-Car System
1485 Stanley Street, Suite 905
Montréal, Québec
H3A 1P6

10.2.3 Air, Rail and Motorcoach Fares in Canada

TABLE 2

Air Fares as of January 1986
(in Canadian dollars, economy class, one way)

	Halifax	Montreal	Ottawa	Toronto	Winnipeg	Regina	Calgary	Edmonton	Vancouver
Montreal	157								
Ottawa	171	83							
Toronto	209	123	107						
Winnipeg	354	267	251	232					
Regina	411	324	310	289	127				
Calgary	482	395	381	361	197	140			
Edmonton	482	395	381	361	197	144	70		
Vancouver	556	468	454	432	272	213	142	157	
Yellowknife	654	570	558	537	372	332	246	201	344

Rail Fares as of January 1986
(in Canadian dollars, economy class, one way)

	Halifax	Montreal	Ottawa	Toronto	Winnipeg	Regina	Calgary	Edmonton
Montreal	91							
Ottawa	101	19						
Toronto	121	48	42					
Winnipeg	204	143	134	129				
Regina	234	174	164	160	50			
Calgary	273	213	204	200	101	64		
Edmonton	266	206	196	192	92	86	30	
Vancouver	315	255	246	242	147	115	68	78

Motorcoach Fares as of January 1986
(in Canadian dollars, one way)

	Halifax	Montreal	Ottawa	Toronto	Winnipeg	Regina	Calgary	Edmonton
Montreal	78							
Ottawa	86	15						
Toronto	104	36	32					
Winnipeg	190	99*	84	99*				
Regina	195	99*	89	99*	37			
Calgary	205*	99*	99*	99*	75	47		
Edmonton	205*	99*	99*	99*	75	48	17	
Vancouver	205*	99*	99*	99*	99*	93	55	65

* Excursion fares

NOTE: Fares subject to change - please check before departure. Rates in round figures. There is a wide range of lower promotional fares available to those who qualify. Check with your travel agent or transportation company.

10.2.4 Car Hire Rates

Car hire rates average $37.00 a day, depending on the size of car and whether or not there is unlimited kilometrage (mileage). Firms may offer several hundred kilometres free, or a daily rate with a kilometre charge added. Insurance is usually an extra charge. A credit card or a cash deposit is usually required.

Hiring a car can be a relatively inexpensive and convenient way to travel. However, if a car is hired in one city and dropped off in another, a sometimes quite substantial charge is made, depending upon the drop-off location.

Most car-hire companies do not rent vehicles to persons under 21 years of age.

10.2.5 Taxi Fares

Taxi fares vary but, on the average, there is an immediate charge of approximately $1.35 upon entering the taxicab, and an additional $1.20 or more for each kilometre. Taxi fares vary from city to city in Canada.

10.2.6 Bus and Subway Fares

For transportation within a city, the average fare starts at 90¢ or more. This includes transfer privileges. Fares are charged at a set rate, and do not vary according to distance travelled. Exact fares are required on many city buses, and visitors should ensure they have the correct change. Under the exact fare system, bus drivers do not sell tickets or carry money. Transfers should be requested when boarding a bus.

11. BUSINESS HOURS

Government offices	9:00 AM - 5:00 PM
Business houses	9:00 AM - 5:00 PM
Banks	10:00 AM - 3:00 PM

Monday to Friday, with extended hours at some locations on Thursday, Friday and Saturday.

12. HOLIDAYS IN CANADA

All Canada	1986	1987	1988
New Year's Day	Jan. 1	Jan. 1	Jan. 1
Good Friday	Mar. 28	Apr. 17	Apr. 11
Easter Monday	Mar. 31	Apr. 20	Apr. 14
Victoria Day	May 19	May 18	May 23
Canada Day	July 1	July 1	July 1
Labour Day	Sept. 1	Sept. 7	Sept. 5
Thanksgiving	Oct. 13	Oct. 12	Oct. 10
Remembrance Day	Nov. 11	Nov. 11	Nov. 11
Christmas Day	Dec. 25	Dec. 25	Dec. 25
Boxing Day	Dec. 26	Dec. 26	Dec. 26

Provincial Holidays

	1986	1987	1988
Alberta			
Heritage Day	Aug. 4	Aug. 3	Aug. 1
British Columbia			
British Columbia Day	Aug. 4	Aug. 3	Aug. 1
Manitoba, New Brunswick, Northwest Territories, Ontario, Saskatchewan			
Civic Holiday	Aug. 4	Aug. 3	Aug. 1

Newfoundland			
St. Patrick's Day	Mar. 10	Mar. 16	Mar. 14
St. George's Day	Apr. 21	Apr. 27	Apr. 25
Discovery Day	June 16	June 22	June 27
Memorial Day	June 23	June 29	July 4
Orangeman's Day	July 7	July 15	July 11
Quebec			
Saint Jean-Baptiste	June 24	June 24	June 24
Yukon			
Discovery Day	Aug. 11	Aug. 10	Aug. 15

13. SHOPPING

Fine Canadian handicrafts and native products such as wood carvings, pottery, glass, jewellery, knitted or hand-woven goods, Inuit (Eskimo) art, as well as novelties, moccasins and other articles of clothing can be purchased as holiday souvenirs.

Some countries have restrictions against the importation of products from, certain endangered marine mammals (polar bears, seals, walrus, etc.). Visitors planning to purchase these products should check the entry regulations in their home countries.

In most places, shops and stores are open until 5:30/6:00 PM and on Thursday and Friday until 9:00 PM. In some municipalities, depending on local by-laws, a limited number of shops are open in the evenings during the week. Many small neighbourhood stores remain open late at night and on Sunday, and sell groceries, some personal items and newspapers.

A recent Supreme Court decision may lead to regular Sunday shopping.

13.1 Clothing Sizes

Canadian sizes are different from British and European sizes, and it is recommended that clothing articles be tried on before purchase. Women's apparel in Canada has a standard size range of 5/6 to 20. Sweaters are usually sized small(S), medium(M), large(L), and extra large(XL).

13.2 Credit Cards

Most major credit cards and principal bank cards are honoured in Canada, but visitors are advised to check with their own banks before leaving home.

14. TELEGRAPH

Telegrams cannot be sent through the post offices in Canada. Telegrams or "Telepost" messages should be telephoned or delivered to CN/CP Telecommunicatons - addresses and telephone numbers can be found in the local telephone directories.

In Newfoundland and Labrador, telegrams are sent through Terra Nova Tel.

15. TIPPING

Tips or service charges are not usually added to a bill in Canada. In general, a tip of 10 to 15 percent of the total amount is given. This applies to waiters, waitresses, barbers and hairdressers, taxi drivers, etc. Bellhops, doormen, redcaps (porters), etc. at hotels, airports and railway stations are generally paid $1.00 per item of luggage.

16. CANADIAN CUISINE

16.1 A Prize-Winning Tradition

The combination of certain indigenous products, native cooking methods, necessity, and imagination have created a cuisine that, in 1984, resulted in a prize-winning effort in the World Culinary Olympics in Frankfort, Germany. Competing with chefs from over 20 countries, Canada placed first overall in the eight-day, round-the-clock contest. In 1976, Canada placed second overall, with Switzerland placing first.

16.2 A Regional Perspective

Canadian chefs' recipes demonstrate the distinctiveness of Canadian cuisine featuring Canadian products. Beef and salmon dishes are clearly national favourites in Canada. Regional favourites include: fish and seafood dishes, five varieties of salmon, oysters, fresh halibut, Pacific prawns and Dungeness crab, fresh fruits, particularly apples, and products of the interior B.C. orchard industry. Alberta, Saskatchewan and Manitoba are usually known for their beef, but also buffalo (now commercially available, although still in limited quantities), wild rice, Winnipeg goldeye, whitefish, and arctic char.

Ontario, the cheddar cheese capital of the world, also provides vegetables such as corn and tomatoes, fowl including turkey and chicken, freshwater fish and Ontario apples and grapes.

Quebec, long-recongized for its superb cuisine, has a tradition of distinctive food preparation dating back to the days of New France when settlers adapted traditional French recipes to Canadian ingredients. Quebec tourtière, habitant pea soup, pork and veal in many forms and recipes featuring maple syrup products, form part of this province's offerings.

The Atlantic Provinces, are also famous for fish and vegetables dishes. Restigouche salmon, salt and freshwater fish, scallops and lobsters are popular favourites. New Brunswick fiddleheads and Prince Edward Island and New Brunswick potatoes are staples from this area.

In addition to the above Canadian specialties, the country's cuisine is complemented by a rich variety of game and ethnic dishes, in keeping with Canada's cultural mosaic, which are served by restaurants coast to coast. Italian, French, Chinese, Japanese, German, Ukranian, Hungarian, Mexican, Middle Eastern and Indo-Pakestani foods are some of the major ethnic offerings.

17. LANGUAGES

According to the 1981 census, English and French respectively were spoken in the homes of 68 and 25 percent of Canadians. The remaining 7 percent had a variety of other mother tongues, among the more significant being: Italian, German, Ukranian, Chinese, Indo-Pakistani and native peoples' languages. As Table 3 shows, these language groups are scattered throughout the Canadian provinces.

TABLE 3

POPULATION, BY LANGUAGE SPOKEN AT HOME, 1981
(thousands)

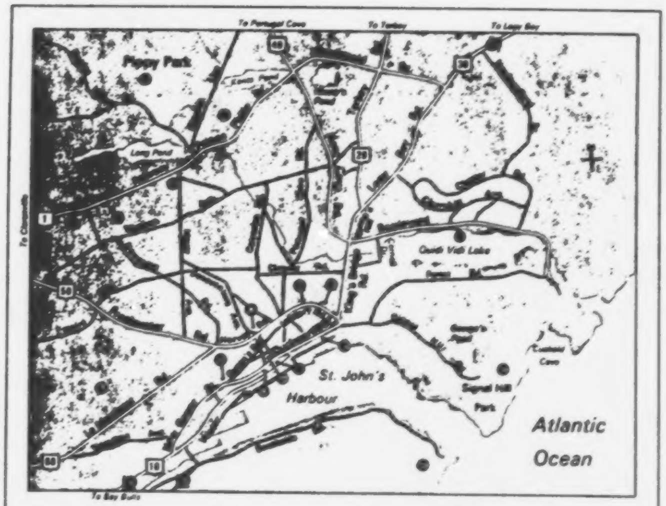
	Canada	Nfld.	P.E.I.	N.S.	N.B.	Que.	Ont.	Man.	Sask.	Alta.	B.C.	Yukon	N.W.T.
English	16426	560	117	807	469	809	7337	872	887	2030	2487	22	29
French	5923	2	4	24	217	5257	333	31	10	30	15	*	1
German	164	*	*	*	*	9	57	32	13	27	23	*	*
Greek	95	*	*	1	*	38	48	1	1	2	4	*	*
Italian	365	*	*	*	*	101	236	4	1	8	15	*	*
Nederlandic Languages	27	*	*	*	*	1	14	2	1	4	5	*	*
Polish	56	*	*	*	*	8	35	4	1	5	3	*	*
Portuguese	131	*	*	*	*	21	91	5	*	4	9	*	*
Spanish	51	*	*	*	*	16	24	2	1	5	4	*	*
Ukranian	95	*	*	*	*	6	33	19	14	17	5	*	*
Chinese	187	*	*	1	1	12	78	5	4	24	61	*	*
Indo-Pakistani Languages	95	*	*	1	*	5	39	2	1	11	37	*	*
Japanese	11	*	*	*	*	*	4	*	*	1	5	*	*
Korean	14	*	*	*	*	*	9	*	*	2	2	*	*
Philippine Languages	32	*	*	*	*	1	16	6	*	3	5	*	*
Arabic	28	*	*	1	*	8	14	*	*	4	*	*	*
Amerindian Languages	92	*	*	2	1	17	13	20	17	16	3	*	3
Vietnamese	29	*	*	*	*	9	8	1	1	5	3	*	*

* Less than 500.

Source: Census of Canada, 1981.

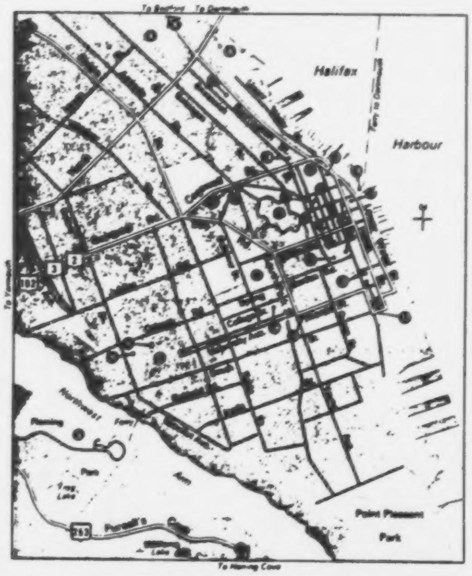
18. MAPS OF CANADIAN CITIES

St. John's
Saint John
Montreal
Toronto
London
Ottawa
Winnipeg
Saskatoon
Edmonton
Victoria
Halifax
Fredericton
Québec
Hamilton
Windsor
Kingston
Regina
Calgary
Vancouver


To Portugal Cove
To Torbay
To Logy Bay
Pippy Park
Long Pond
Quidi Vidi Lake
St. John's
Harbour
Signal Hill
Park
Atlantic
Ocean
To Bay Bulls

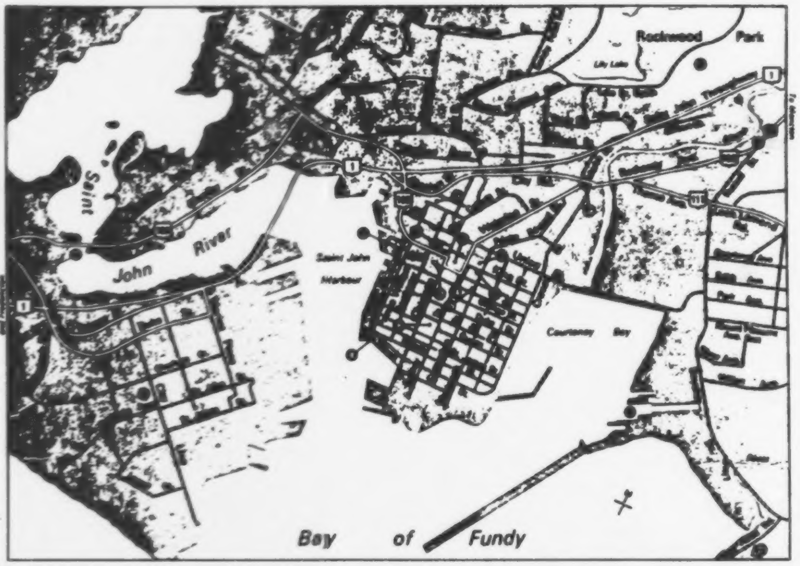
St. John's

1 Pippy Park
2 Memorial University of Newfoundland
3 Bowring Park
4 Arts and Culture Center
5 Cape Spear
6 Tourist Information
7 Confederation Building
8 Basilica of St. John the Baptist
9 CAA
10 Anglican Cathedral
11 Newfoundland Museum
12 Government House
13 Commissariat House
14 Newfoundland War Memorial
15 Fort Amherst
16 St. John's Regatta
17 Logy Bay
18 Alcock and Brown
19 Signal Hill Park


To Bedford
To Dartmouth
Halifax
Harbour
Fleming
Park
Point Pleasant
Park
To Herring Cove

Halifax

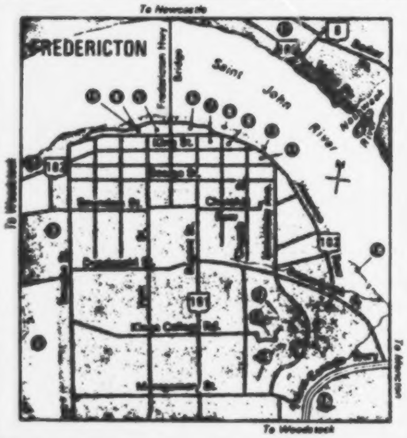
1 Prince's Lodge
2 Fairview Cemetery
3 Fleming Park
4 CFB Stadacona
5 University of King's College
6 Public Archives of Nova Scotia
7 Dalhousie University
8 Halifax Shipyards
9 Naval Dockyard
10 Old Dutch Church
11 Nova Scotia Museum
12 Tourist Information
13 York Redoubt
14 St. George's Church
15 CAA
16 Citadel Hill
17 Public Gardens
18 All Saints Cathedral
19 Chapel Built in a Day
20 Historic Properties
21 Scotia Square
22 Grand Parade
23 Halifax Metro Center
24 St. Paul's Church
25 Halifax North Memorial Library
26 Province House
27 Government House
28 St. Mary's Basilica
29 St. Matthew's Church
30 Henry House
31 Edward Cornwallis
32 Point Pleasant Park

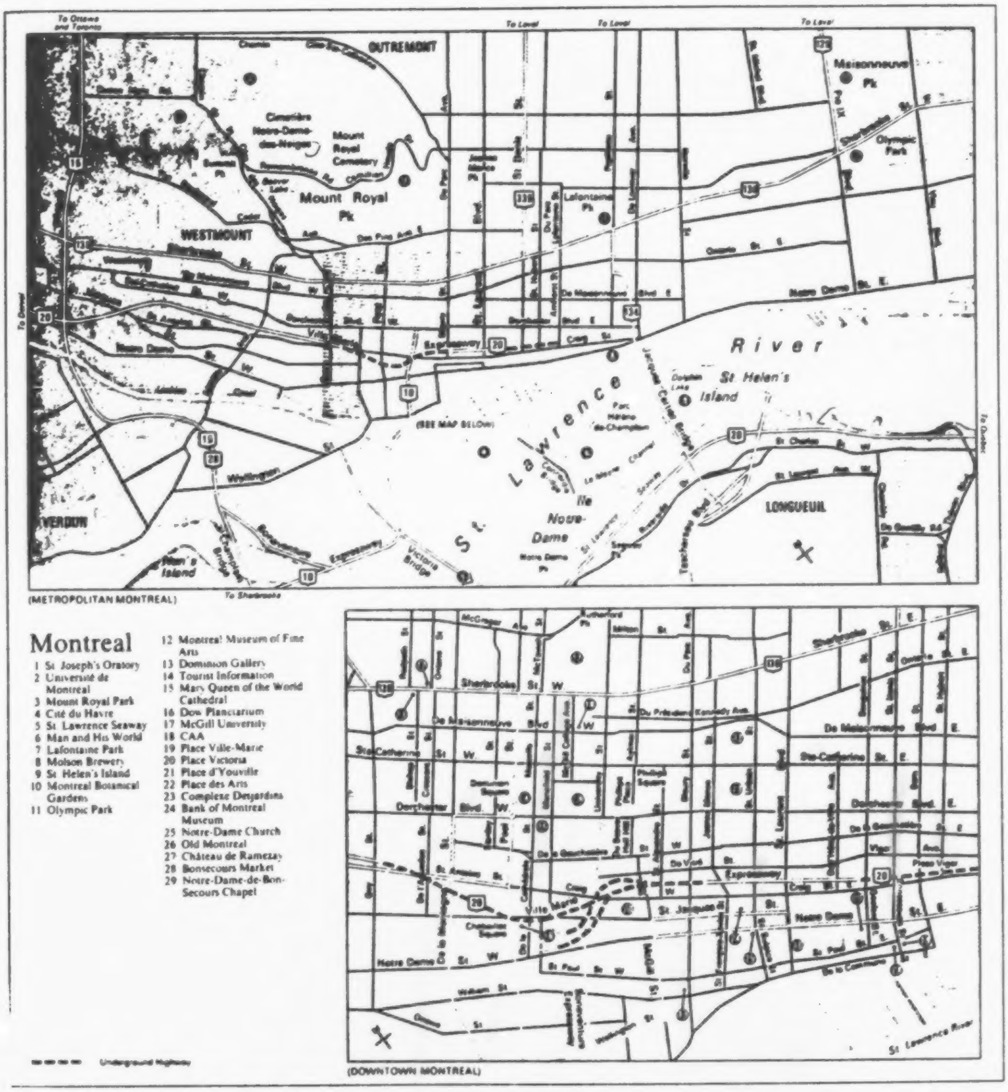

Rockwood Park
Lily Lake
Saint John River
Saint John Harbour
Courtenay Bay
To Moncton
Bay of Fundy

Saint John

1 Reversing Falls
2 Carleton Martello Tower
3 New Brunswick Museum
4 Reid's Point
5 Fort Howe
6 Loyalist Landing Place
7 University of New Brunswick
8 Samuel de Champlain
9 Saint John's Stone Church
10 Loyalist House
11 Trinity Church
12 Old City Market
13 King Square
14 County Courthouse
15 Tourist Information
16 Loyalist Burial Ground
17 Barbour's General Store
18 CAA
19 Saint John Dry Dock
20 Rockwood Park
21 Mispec
22 Atlantic National Exhibition
23 Rothesay Collegiate School

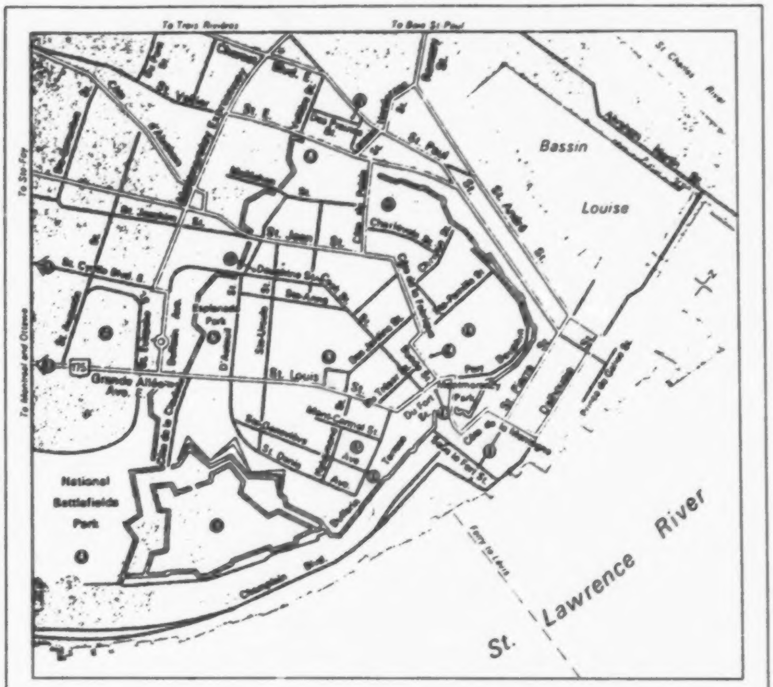
1 Old Government House
2 Odell Park
3 Exhibition Grounds
4 City Hall
5 Military Compound
6 Officers' Square
7 The Playhouse
8 Beaverbrook Art Gallery
9 Legislative Building
10 The Green
11 Christ Church Cathedral
12 Poets' Corner
13 University of New Brunswick
14 St. Thomas University
15 Tourist Information Center
16 Tourist Information (open in summer only)
17 Fort Nashwaak (cairn)
18 Loyalist Burial Ground


To Newcastle
FREDERICTON
Saint John River
To Woodstock
To Moncton
To Woodstock


To Ottawa and Toronto
To Laval
To Laval
To Laval
OUTREMONT
Cimetière Notre-Dame-des-Neiges
Mount Royal Cemetery
Mount Royal Pk
Lafontaine Pk
Maisonneuve Pk
Olympic Park
WESTMOUNT
Sherbrooke St. W
Notre Dame St. E.
River
St. Helen's Island
St. Lawrence
(SEE MAP BELOW)
Ile Notre-Dame
LONGUEUIL
VERDUN
Wellington
Victoria Bridge
To Dorval
To Quebec
(METROPOLITAN MONTREAL)
To Sherbrooke
Sherbrooke St. W
De Maisonneuve Blvd
Ste-Catherine St. W
Dorchester Blvd. W
Dominion Square
Phillips Square
Chaboillez Square
Ville Marie
Expressway
St. Jacques
Notre Dame St. W
St. Paul St. W
William St.
St. Lawrence River
Underground Highway
(DOWNTOWN MONTREAL)

Montreal

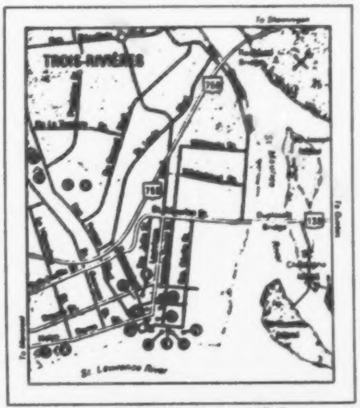
1 St Joseph's Oratory
2 Université de Montreal
3 Mount Royal Park
4 Cité du Havre
5 St Lawrence Seaway
6 Man and His World
7 Lafontaine Park
8 Molson Brewery
9 St Helen's Island
10 Montreal Botanical Gardens
11 Olympic Park
12 Montreal Museum of Fine Arts
13 Dominion Gallery
14 Tourist Information
15 Mary Queen of the World Cathedral
16 Dow Planetarium
17 McGill University
18 CAA
19 Place Ville-Marie
20 Place Victoria
21 Place d'Youville
22 Place des Arts
23 Complexe Desjardins
24 Bank of Montreal Museum
25 Notre-Dame Church
26 Old Montreal
27 Château de Ramezay
28 Bonsecours Market
29 Notre-Dame-de-Bon-Secours Chapel



To Trois Rivières
To Baie St Paul
St. Charles River
Bassin
Louise
St. Paul
St. André St.
St. Jean St.
St. Cyrille Blvd. E.
Grande Allée Ave.
St. Louis St.
Charlevoix St.
Dalhousie St.
St. Pierre St.
Champlain Blvd.
National Battlefields Park
Esplanade Park
Montmorency Park
Ferry to Lévis
To Montreal and Ottawa
To Ste-Foy
St. Lawrence River

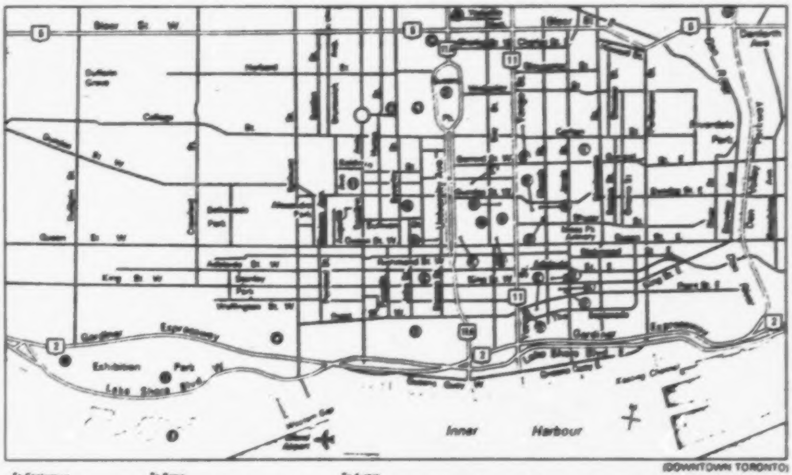
Quebec

1 Grand Théâtre de Québec
2 National Assembly
3 CAA
4 National Battlefields Park
5 Jesuit Chapel
6 Tourist Information
7 The Fortifications
8 Artillery Park
9 Ursuline Convent
10 Wolfe-Montcalm Monument
11 Dufferin Terrace
12 Talon's Vaults
13 Hôtel-Dieu Hospital
14 Basilica of Notre-Dame
15 Quebec Seminary
16 Musée du Fort
17 Place Royale

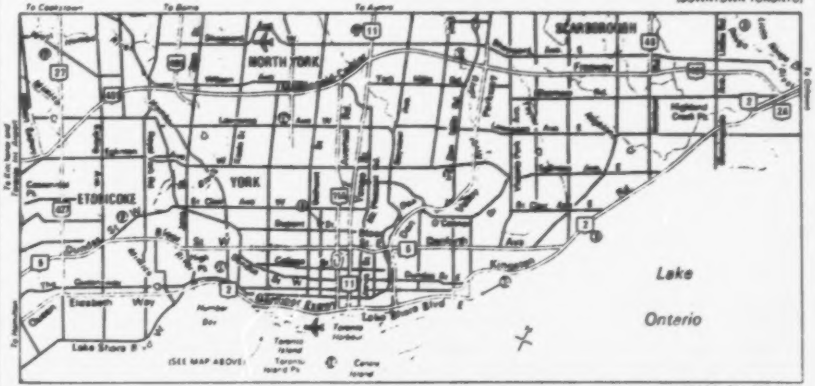


TROIS-RIVIÈRES
To Shawinigan
755
138
To Quebec
To Montreal
St. Lawrence River

1 CAA
2 Université du Québec à Trois-Rivières
3 Tourist Information (summer only)
4 Vieux Moulin à Farine
5 Maison Grand Prix
6 Exhibition Grounds
7 Champlain Park
8 Cathedral of the Immaculate Conception
9 Tourist Information
10 Le Flambeau
11 De Tonnancour House
12 Place d'Armes
13 St. James Anglican Church
14 Sœur des Gouverneurs
15 Ursuline Convent
16 Turcotte Terrace


Bloor St. W
College
Queen St. W
King St. W
Wellington St. W
Gardiner Expressway
Exhibition Park
Lake Shore Blvd.
Danforth Ave.
Inner Harbour

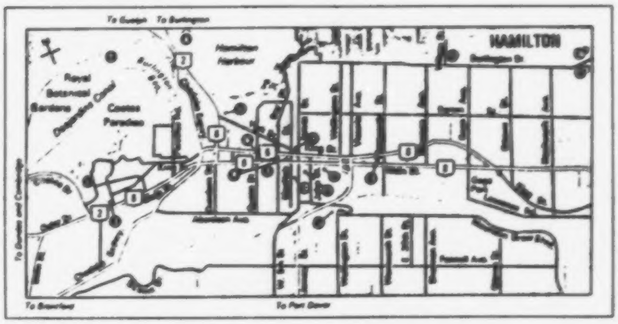
(DOWNTOWN TORONTO)


To Cookstown
To Barrie
To Aurora
NORTH YORK
SCARBOROUGH
YORK
ETOBICOKE
Lake Ontario
(SEE MAP ABOVE)

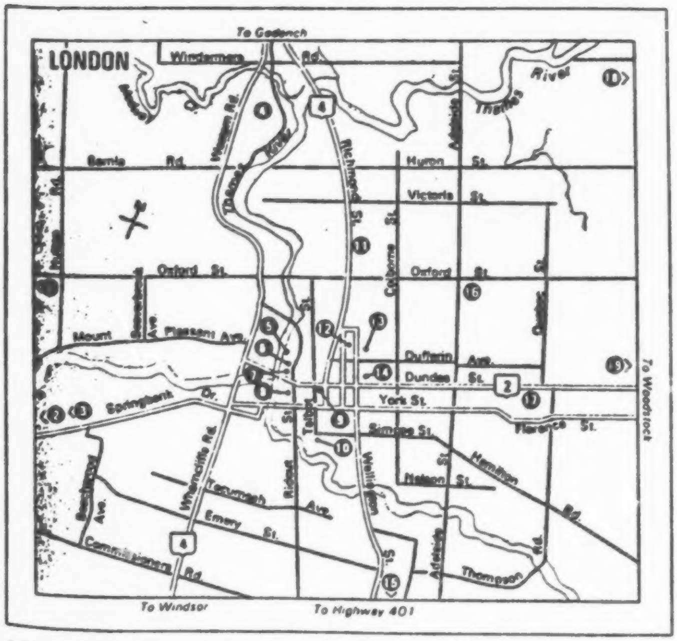
(METROPOLITAN TORONTO)

Toronto

1 Canadian National Exhibition
2 Marine Museum of Upper Canada
3 Ontario Place
4 Fort York
5 Kensington Market
6 Macdonald-Mowat House
7 Yorkville Village
8 Royal Ontario Museum
9 University of Toronto
10 Queens Park
11 Art Gallery of Ontario
12 William Campbell House
13 CN Tower
14 Chinatown
15 Tourist Information
16 Royal Alexandra Theatre
17 City Hall
18 Osgoode Hall
19 CAA
20 Massey Hall
21 Eaton Center
22 St. Michael's Cathedral
23 Old City Hall
24 St. Lawrence Center
25 O'Keefe Center
26 Allan Gardens
27 Mackenzie House
28 St. James Cathedral
29 St. Lawrence Hall
30 St. Lawrence Market
31 Todmorden Mills Park
32 Woodbine Racetrack
33 Montgomery's Inn
34 High Park
35 Gibson House
36 Craven Foundation Automobile Collection
37 Casa Loma
38 Toronto Island Park
39 Ontario Science Center
40 The Beaches
41 Scarborough Bluffs
43 Metropolitan Toronto Zoo

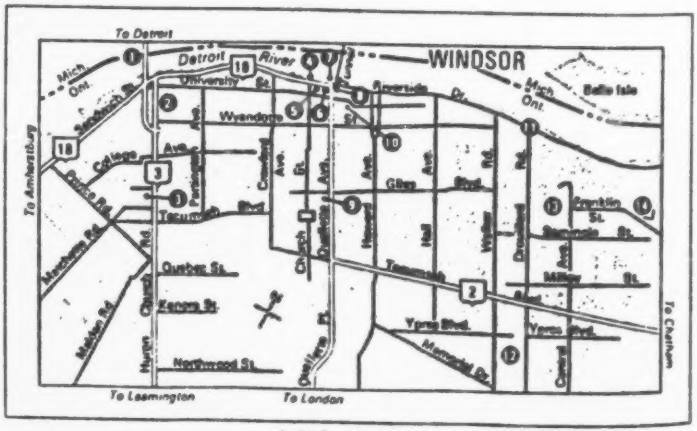

To Guelph
To Burlington
HAMILTON
Hamilton Harbour
Royal Botanical Gardens
Cootes Paradise
To Dundas and Cambridge
To Brantford
To Port Dover

1 Royal Botanical Gardens
2 McMaster University
3 Art Gallery of Hamilton
4 Tourist Information (summer only)
5 Dundurn Castle
6 Hess Village
7 Canadian Football Hall of Fame
8 Hamilton Place
9 Hamilton Market
10 Whitehern
11 Courthouse
12 Tourist Information
13 Sam Lawrence Park
14 CAA
15 Steel Company of Canada
16 Burlington Skyway Bridge
17 Burlington Ship Canal



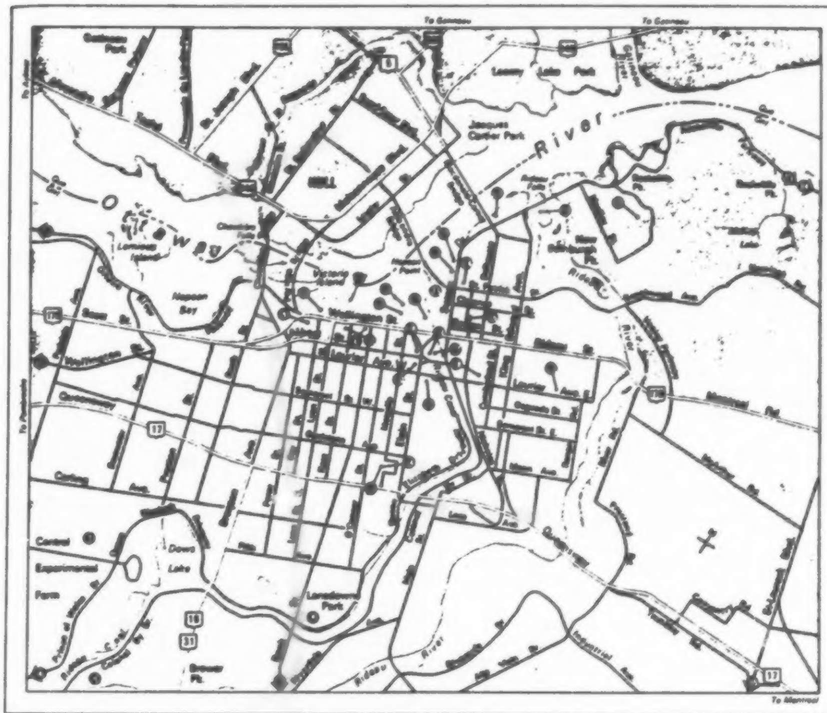
LONDON
To Goderich
Windermere Rd.
Western Rd.
Thames River
Richmond St.
Adelaide St.
Huron St.
Sarnia Rd.
Victoria St.
Oxford St.
Colborne St.
Quebec St.
Mount Pleasant Ave.
Dufferin Ave.
Dundas St.
York St.
Springbank Dr.
Simcoe St.
Florence St.
Talbot St.
Ridout St.
Wharncliffe Rd.
Wellington Rd.
Hamilton Rd.
Nelson St.
Tecumseh Ave.
Emery St.
Commissioners Rd.
Thompson Rd.
Baseline Rd.
To Woodstock
To Windsor
To Highway 401

1 Sifton Botanical Bog
2 Springbank Park
3 Storybook Gardens
4 University of Western Ontario
5 Eldon House
6 London Regional Art Gallery
7 Ridout Restoration
8 Courthouse
9 Covent Garden
10 Labatt Pioneer Brewery
11 Sir Adam Beck House
12 St. Paul's Cathedral
13 Tourist Information
14 Centennial Museum
15 Tourist Information (summer only)
16 Royal Canadian Regiment Museum
17 Western Fair
18 Fanshawe Pioneer Village
19 CAA



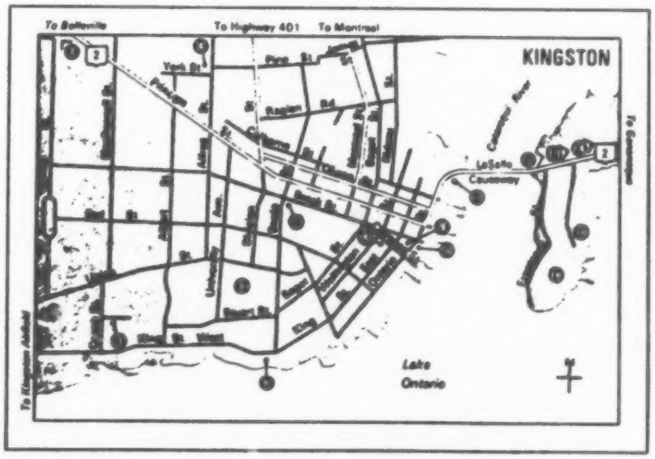
WINDSOR
To Detroit
Detroit River
Mich.
Ont.
Belle Isle
University St.
Riverside Dr.
Wyandotte
Sandwich St.
College Ave.
Tecumseh Blvd.
Giles Blvd.
Quebec St.
Kenora St.
Northwood St.
Huron Church Rd.
Ouellette Ave.
Howard Ave.
Walker Rd.
Drouillard Rd.
Franklin St.
Seminole St.
Tecumseh
Ypres Blvd.
Memorial Dr.
Central
Malden Rd.
Matchette Rd.
To Amherstburg
To Leamington
To London
To Chatham

1 Ambassador Bridge
2 University of Windsor
3 Tourist Information
4 Art Gallery of Windsor
5 Hiram Walker Historical Museum
6 Cleary Auditorium
7 Dieppe Gardens
8 Tourist Information
9 CAA
10 Tourist Information
11 Hiram Walker Distillery
12 Chrysler
13 Ford of Canada
14 General Motors

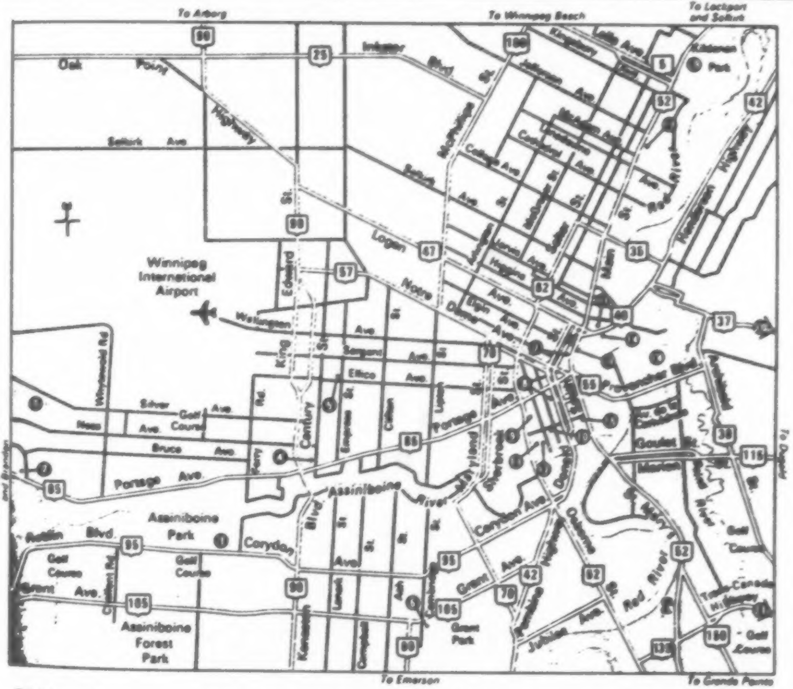

To Gatineau
To Gatineau
Ottawa
River
Jacques Cartier Park
Leamy Lake Park
Lemieux Island
Nepean Bay
Victoria Island
Wellington St.
Rideau River
Carling Ave.
Dows Lake
Central Experimental Farm
Lansdowne Park
Brewer Pk.
Rideau River
17
To Montreal

Ottawa

1 Kitchissippi Lookout
2 CAA
3 Central Experimental Farm
4 Museum of Canadian Scouting
5 Carleton University
6 National Postal Museum
7 Billing's Estate
8 Ottawa Civic Center
9 Garden of the Provinces
10 Public Archives of Canada
11 Supreme Court
12 Saint Andrew's Church
13 National Museum of Man
14 National Museum of Natural Science
15 Parliament Buildings
16 Changing the Guard
17 Bytown Museum
18 Canadian Film Institute
19 National Arts Center
20 National Gallery
21 Governor General's Foot Guards Museum
22 Royal Canadian Mint
23 Canadian War Museum
24 Notre-Dame Basilica
25 Major's Hill Park
26 By Ward Market
27 Tourist Information
28 University of Ottawa
29 Earnscliffe
30 City Hall
31 Laurier House
32 Government House
33 R C M P "N" Division
34 National Aeronautical Collection
35 National Museum of Science and Technology

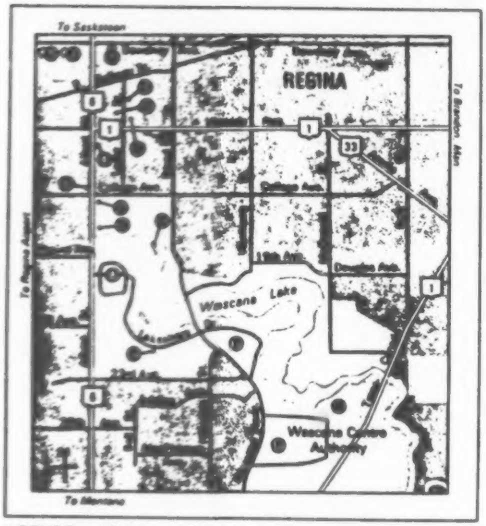

KINGSTON
To Belleville
To Highway 401
To Montreal
To Gananoque
York St.
Princess St.
LaSalle Causeway
King St. West
Lake Ontario
To Kingston Airfield

1 Canadian Penitentiary Service Museum
2 CAA
3 Bellevue House National Historic Park
4 International Hockey Hall of Fame
5 Queen's University
6 Murney Tower Museum
7 St. Mary's Cathedral
8 St. George's Cathedral
9 City Hall
10 Tourist Information
11 Fort Frontenac
12 Canadian Forces Communications and Electronics Museum
13 Old Fort Henry
14 Tourist Information (summer only)
15 Royal Military College Museum
16 Stone Frigate

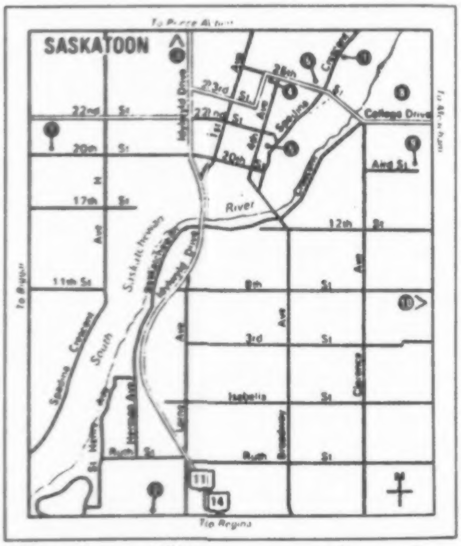

To Arborg
To Winnipeg Beach
To Lockport and Selkirk
Inkster Blvd.
Oak Point Highway
Selkirk Ave.
Logan
Notre Dame Ave.
Winnipeg International Airport
Wellington
King Edward St.
Century St.
Sargent Ave.
Ellice Ave.
Silver Ave.
Ness Ave.
Bruce Ave.
Golf Course
Portage Ave.
Assiniboine River
Assiniboine Park
Corydon Ave.
Roblin Blvd.
Grant Ave.
Assiniboine Forest Park
Grant Park
Jubilee Ave.
Red River
Provencher Blvd.
Goulet St.
Marion
Main St.
Henderson Highway
Kildonan Park
Trans-Canada Highway
Golf Course
To Portage la Prairie and Brandon
To Dugald
To Emerson
To Grande Pointe

Winnipeg

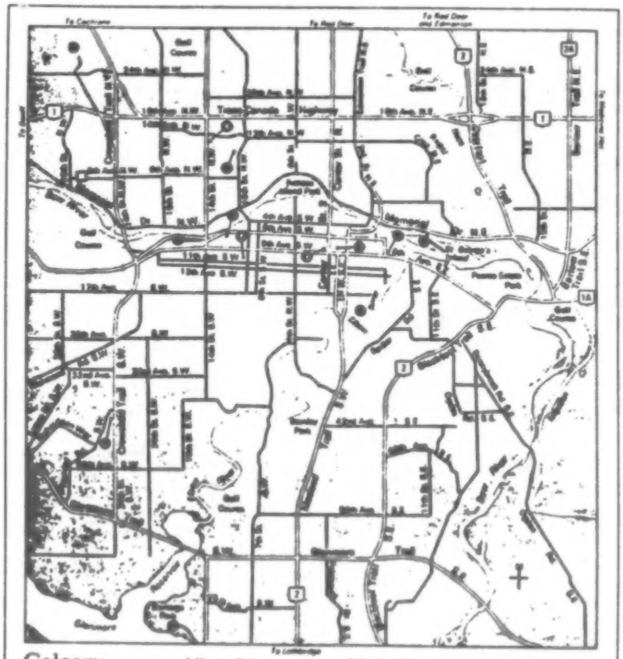
1 Living Prairie Museum
2 Grant Gristmill
3 Assiniboine Park
4 Prairie Dog Central
5 CAA
6 Pan-Am Swimming Pool
7 Winnipeg Commodity Exchange
8 Winnipeg Centennial Library
9 Winnipeg Art Gallery
10 Macdonald House
11 Manitoba Legislative Building
12 Tourist Information
13 Ross House
14 Ukrainian Cultural and Educational Center
15 Centennial Center
16 Upper Fort Garry
17 Seven Oaks House and Monument
18 St. Boniface
19 Kildonan Park
20 Birds Hill Provincial Park
21 Royal Canadian Mint


To Saskatoon
REGINA
To Brandon, Man
To Regina Airport
College Ave
19th Ave
Wascana Lake
22nd Ave
Wascana Centre Authority
To Montana

1 RCMP Depot Division
2 Saskatchewan House
3 CAA
4 Tourist Information
5 Telorama
6 Saskatchewan Museum of Natural History
7 Speaker's Corner
8 Legislative Building
9 Tourist Information
10 Dunlop Art Gallery
11 Victoria Park
12 Saskatchewan Power Building
13 Wascana Waterfowl Park
14 Diefenbaker Homestead
15 Saskatchewan Centre of the Arts
16 University of Regina
17 Wascana Centre Authority

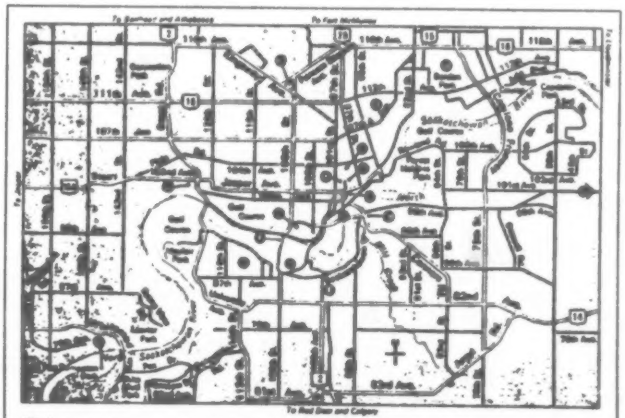

To Prince Albert
SASKATOON
22nd St
20th St
17th St
11th St
23rd St
22nd St
20th St
College Drive
River
12th St
8th St
3rd St
Isabella St
Ruth St
South Saskatchewan
To Biggar
To Regina
11
14

1 Museum of Ukrainian Culture
2 Western Development Museum
3 Tourist Information (summer only)
4 CAA
5 Tourist Information
6 Tourist Information (summer only)
7 Mendel Art Gallery and Civic Conservatory
8 University of Saskatchewan
9 Ukrainian Museum of Arts and Crafts
10 Tourist Information (summer only)


To Cochrane
To Red Deer
To Red Deer and Edmonton
Trans-Canada Highway
Golf Course
Glenmore
To Lethbridge

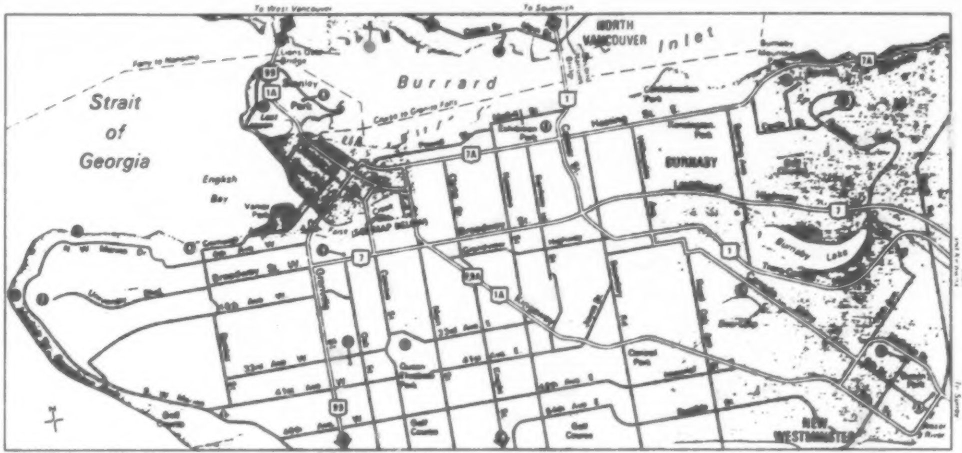
Calgary

1 University of Calgary
2 P.P.C.L.I. (Princess Patricia's Canadian Light Infantry)
3 Heritage Park
4 Southern Alberta Jubilee Auditorium
5 Burns Memorial Gardens
6 Tourist Information/Mewata Park
7 Calgary Centennial Planetarium
8 CAA
9 Calgary Tower
10 Glenbow Center
11 Calgary Exhibition and Stampede Park
12 Fort Calgary
13 St. George's Island


To Barrhead and Athabasca
To Fort McMurray
Saskatchewan
Golf Course
To Red Deer and Calgary

Edmonton

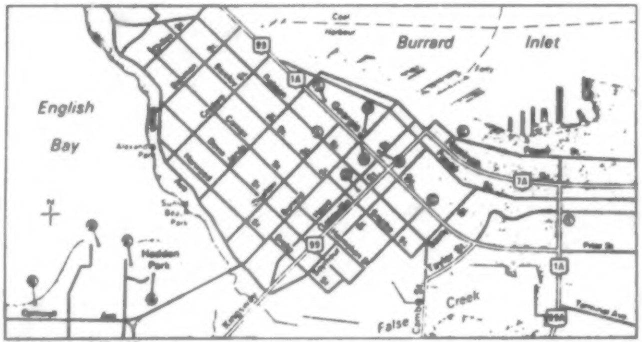
1 Fort Edmonton Park
2 Provincial Museum of Alberta
3 University of Alberta
4 High Level Bridge
5 Capital City Recreation Park
6 CAA
7 Legislative Building
8 Old Strathcona
9 Tourist Information
10 Alberta Telephone Tower
11 Edmonton Art Gallery
12 Citadel Theater
13 Canada's Aviation Hall of Fame
14 Muttart Conservatory
15 Commonwealth Games Facilities
16 Northlands Exhibition Grounds
17 Refinery Row


To West Vancouver
To Squamish
NORTH VANCOUVER
Burrard
Inlet
Strait of Georgia
English Bay
BURNABY
Burnaby Lake
NEW WESTMINSTER
To Richmond

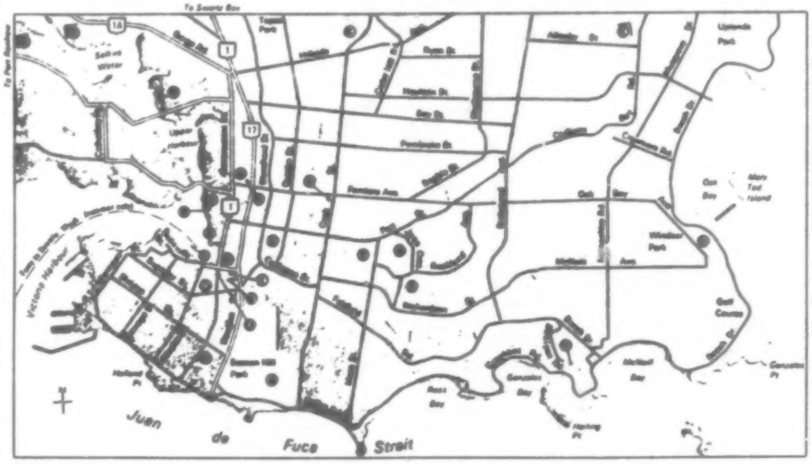
(METROPOLITAN VANCOUVER)

Vancouver

1 Nitobe Memorial Gardens
2 University of British Columbia
3 Spanish Banks
4 Old Hastings Mill Store Museum
5 Capilano Canyon Park
6 Grouse Mountain
7 Stanley Park
8 Vancouver Public Aquarium
9 CAA
10 Vandusen Botanical Display Garden
11 Richmond Arts Center
12 Queen Elizabeth Park
13 Royal Hudson
14 Lighthouse Park
15 Park and Tilford Gardens
16 Lynn Canyon Park
17 Exhibition Park
18 Reifel Waterfowl Refuge
19 Heritage Village
20 Burnaby Mountain Park
21 Simon Fraser University
22 Centennial Lacrosse Hall of Fame
23 Irving House
24 Kitsilano Beach
25 Maritime Museum
26 MacMillan Planetarium
27 Centennial Museum
28 Vancouver Art Gallery
29 Robsonstrasse
30 Orpheum Theater
31 Tourist Information
32 Christ Church Cathedral
33 Centennial Fountain
34 Gastown
35 Queen Elizabeth Theater
36 Chinatown


Coal Harbour
Burrard
Inlet
English Bay
Haddon Park
False
Creek

(DOWNTOWN VANCOUVER)


To Swartz Bay
Uplands Park
Victoria Harbour
Oak Bay
Juan
de
Fuca
Strait

Victoria

1 Craigflower Schoolhouse Museum
2 Craigflower Manor
3 Point Ellice House Museum
4 Bastion Square
5 Maritime Museum of British Columbia
6 Tourist Information
7 Pacific Undersea Gardens Limited
8 British Columbia Provincial Archives British Columbia Provincial Museum
9 Parliament Buildings
10 Emily Carr House
11 Centennial Square
12 McPherson Playhouse
13 Empress Hotel
14 Thunderbird Park
15 Helmcken House Historical Museum
16 Christ Church Cathedral
17 Beacon Hill Park
18 Spencer Castle
19 CAA
20 Art Gallery of Greater Victoria
21 Craigdarroch Castle
22 Government House
23 Walbran Park
24 University of Victoria
25 Sealand of the Pacific Limited